

UNITED STATES OF AMERICA and  
THE PENNSYLVANIA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION,  
Plaintiffs,  
1482 v.  
KEYSTONE SANITATION CO., INC.,  
et al.  
Defendants.

## ED\_006204\_00005142-00001

IN THE UNITED STATES DISTRICT COURT  
FOR THE MIDDLE DISTRICT OF PENNSYLVANIA

---

UNITED STATES OF AMERICA and )

THE PENNSYLVANIA DEPARTMENT OF )  
ENVIRONMENTAL PROTECTION, )

Plaintiffs, )

1482 )

v. )

KEYSTONE SANITATION CO., INC., )  
et al. )

Defendants. )

---

CIVIL ACTION NO. 1:CV-93-

CONSENT DECREE

## TABLE OF CONTENTS

I.	BACKGROUND . . . . .	1
II.	JURISDICTION . . . . .	12
III.	PARTIES BOUND . . . . .	12
IV.	DEFINITIONS . . . . .	14
V.	GENERAL PROVISIONS . . . . .	30
VI.	OBLIGATION OF THE OWNER/OPERATORS TO PERFORM SOURCE CONTROL WORK AT THE SITE . . . . .	38
VII.	PERFORMANCE OF THE SOURCE CONTROL WORK BY OWNER/OPERATORS . . . . .	42
VIII.	REMEDY REVIEW . . . . .	63
IX.	QUALITY ASSURANCE, SAMPLING, AND DATA ANALYSIS . . . . .	65
X.	ACCESS AND INSTITUTIONAL CONTROL . . . . .	69
XI.	REPORTING REQUIREMENTS . . . . .	77
XII.	EPA APPROVAL OF PLANS AND OTHER SUBMISSIONS. . . . .	80
XIII.	PROJECT COORDINATORS . . . . .	84
XIV.	ASSURANCE OF ABILITY TO COMPLETE THE SOURCE CONTROL WORK . . . . .	86
XV.	CERTIFICATION OF COMPLETION . . . . .	88
XVI.	EMERGENCY RESPONSE . . . . .	94
XVII.	REIMBURSEMENT OF RESPONSE COSTS AND NATURAL RESOURCE DAMAGES AND PAYMENT OF PENALTIES . . . . .	96
XVIII.	PAYMENTS, COST-SHARING, AND REIMBURSEMENTS . . . . .	104

XIX.	INDEMNIFICATION AND INSURANCE . . . . .	112
XX.	FORCE MAJEURE . . . . .	116
XXI.	DISPUTE RESOLUTION . . . . .	119
XXII.	STIPULATED PENALTIES . . . . .	126
XXIII.	COVENANTS NOT TO SUE BY UNITED STATES AND THE STATE . . . . .	132
XXIV.	COVENANTS NOT TO SUE BY OWNER/OPERATORS . . . .	145
XXV.	EFFECT OF SETTLEMENT; CONTRIBUTION PROTECTION	151
XXVI.	ACCESS TO INFORMATION . . . . .	156
XXVII.	RETENTION OF RECORDS . . . . .	158
XXVIII.	NOTICES AND SUBMISSIONS . . . . .	161
XXIX.	EFFECTIVE DATE . . . . .	163
XXX.	RETENTION OF JURISDICTION . . . . .	163
XXXI.	APPENDICES . . . . .	163
XXXII.	COMMUNITY RELATIONS . . . . .	164
XXXIII.	MODIFICATION . . . . .	164
XXXIV.	LODGING AND OPPORTUNITY FOR PUBLIC COMMENT . . .	166
XXXV.	SIGNATORIES/SERVICE . . . . .	166



IN THE UNITED STATES DISTRICT COURT  
FOR THE MIDDLE DISTRICT OF PENNSYLVANIA

UNITED STATES OF AMERICA AND THE)

PENNSYLVANIA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION,

Plaintiffs,

v.

KEYSTONE SANITATION CO., INC.,

Et al.,

Defendants.

CIVIL ACTION NO. 1:CV-93-1482

CONSENT DECREE

I. BACKGROUND

1. The United States of America ("United States"), on behalf of the Administrator of the United States Environmental Protection Agency ("EPA"), filed a complaint in this matter pursuant to Sections 107 and 113 of the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), 42 U.S.C. §§ 9607 and 9613, against the Keystone Defendants, as defined in Section IV, and a number of generator defendants.

2. The United States in its original complaint seeks, inter alia: (1) reimbursement of costs incurred by EPA

and the Department of Justice for response actions at the Keystone Sanitation Landfill Superfund Site in Union Township, Adams County, Pennsylvania, together with accrued interest; (2) a declaration of the liability of the Keystone Defendants, pursuant to Section 113(g) of CERCLA, 42 U.S.C. § 9613(g), that will be binding on any subsequent actions to recover further response costs; and (3) such other relief as the Court finds appropriate.

3. On January 12, 1998, the Commonwealth of Pennsylvania, Department of Environmental Protection (the "State") filed a Motion to Intervene and a proposed Complaint in Intervention in this matter, pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613, and Sections 507 and 701 of the Pennsylvania Hazardous Sites Cleanup Act ("HSCA"), 35 P.S. §§ 6020.101 et seq., and the Pennsylvania Declaratory Judgments Act. The Court granted the State's motion on March 6, 1998. The State in its Complaint in Intervention has alleged the same claims as EPA has under CERCLA, and similar claims under HSCA.

4. The Keystone Defendants filed answers, affirmative defenses and counterclaims to the United States' complaint, denying liability and challenging, *inter alia*, the Record of Decision and Unilateral Administrative Order (as

defined *infra*) issued by EPA in relation to the Site.

5. Certain of the Original Generator Defendants also filed a third-party complaint under Section 113(f) of CERCLA, 42 U.S.C. § 9613(f), against a number of other persons, seeking, inter alia, contribution toward any liability that might be imposed on the Original Generator Defendants. Waste Management of Pennsylvania, Inc. ("WMPA") was named as a third-party defendant based on two allegations: (1) that WMPA is the successor to the Keystone Defendants' CERCLA liability at the Site by virtue of WMPA's purchase of certain assets of the Keystone Defendants; and (2) that WMPA transported waste to the Site. Certain of the third-party defendants, in turn, filed fourth-party complaints under Section 113(f) of CERCLA, 42 U.S.C. § 9613(f), against a number of other persons, seeking contribution toward any liability that might be imposed on them. Waste Management of Maryland, Inc. ("WMM") was named as a fourth party as an alleged successor to Haden Trash Removal, Inc. and Gobrecht Trash Removal, Inc.

6. Certain of the Original Generator Defendants filed a motion for injunctive relief against certain of the Keystone Defendants based on allegations that the Keystone Defendants had transferred and would continue to transfer Keystone Sanitation Company Inc. ("Keystone") and personal

assets to certain relatives and trusts. On August 12, 1994, the Court approved a Stipulated Preliminary Injunction filed by Keystone and the Original Generator Defendants pursuant to which Keystone was enjoined from transferring any of its assets (with the exception of the payment of expenses incurred in the ongoing course of business) pending an outcome of this action. On August 14, 1995, the Court entered a preliminary injunction against the Keystone Defendants and Related Keystone Parties, temporarily enjoining them from transferring or otherwise adversely affecting the value of certain assets in the possession of the Keystone Defendants and Related Keystone Parties pending the outcome of this action. The August 14, 1995 Preliminary Injunction has been modified by the Court on several occasions.

7. Pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, EPA placed the Site on the National Priorities List, set forth at 40 C.F.R. Part 300, Appendix B, by publication in the Federal Register on July 22, 1987, 52 Fed. Reg. 27620.

8. In response to EPA's determination that a release or a substantial threat of release existed at the Site, EPA commenced in 1989 a Remedial Investigation and Feasibility Study ("RI/FS") for the Site pursuant to 40 C.F.R. § 300.430.

9. Pursuant to Section 117 of CERCLA, 42 U.S.C.

§ 9617, EPA published notice of the availability of the RI/FS and of the proposed plan for remedial action on July 20, 1990, in a major local newspaper of general circulation. EPA provided an opportunity for written and oral comments from the public on the proposed plan for remedial action, and a public meeting was held, which meeting was recorded in a transcript.

10. The decision by EPA on the remedial action to be implemented at the Site for Operable Unit One ("OU1") is embodied in a Record of Decision ("ROD"), executed on September 30, 1990, as to which the Commonwealth of Pennsylvania has given its concurrence. The ROD includes a responsiveness summary to the public comments. Notice of the final plan was published in accordance with Section 117(b) of CERCLA.

11. EPA issued a CERCLA § 106 Unilateral Administrative Order, EPA Docket No. III-91-56-DC, on June 28, 1991, as modified on September 6, 1991, to the Keystone Defendants and Original Generator Defendants for performance of the ROD ("the UAO"). The remedial design and the onsite groundwater remedy selected pursuant to the ROD for OU1 initially were implemented by the Original Generator Defendants pursuant to the UAO. The Keystone Defendants participated in funding the remedial design of the groundwater and source control remedies selected pursuant to the ROD for OU-1.

12. On August 22, 1996, the Court held Waste Management of Pennsylvania, Inc., liable as a successor under CERCLA to Keystone Sanitation Co., Inc. The Court's opinion, however, required Keystone Sanitation Co., Inc.'s assets to be looked to first to satisfy its portion of CERCLA liability. Waste Management moved the Court for an order authorizing an interlocutory appeal of the Court's successor liability opinion. The Court denied Waste Management's request for an interlocutory appeal. The litigation of the case did not reach final judgment prior to entry of this Consent Decree.

13. On September 30, 1996, EPA issued a Unilateral Administrative Order to Waste Management ("Waste Management UAO") to undertake the remedy selected in the 1990 Record of Decision, and that Order remains in effect until entry of this Consent Decree. On November 21, 1996, WMPA advised EPA that it would not comply with the Waste Management UAO because it had sufficient cause not to comply with the Waste Management UAO on the grounds that, inter alia, the Waste Management UAO is inconsistent with the Court's successor liability opinion. The United States disputes Waste Management's contentions.

14. On October 22, 1997, the United States and the State lodged with the Court a consent decree with three hundred and seventy six Third and Fourth Party Defendants pursuant to

which the settling Third and Fourth Party Defendants agreed to pay the United States \$4.25 million in past and future response costs at the Site. Upon entry of the consent decree, \$3 million were to be placed into a Site Special Account, to be available for future response costs at the Site. The Court entered that decree on September 10, 1999.

15. On April 29, 1998, the Court granted the United States leave to add claims directly against Waste Management to enforce the Waste Management UAO under CERCLA Section 106(a), and to seek penalties under CERCLA Section 106(b)(1) and punitive damages under CERCLA Section 107(c)(3). The Court also permitted the United States and PADEP to add a claim under CERCLA Section 107(a)(4) against the Keystone Defendants. On the same date, however, the Court denied the United States' motion for leave to amend its Complaint to assert a direct claim under Section 107(a) against Waste Management.

16. On June 23, 1998, the United States lodged with the Court a consent decree with the Original Generator Defendants for performance of the response actions at the Site relating to groundwater capture, containment, and remediation, including, but not limited to, construction of a groundwater treatment facility and a system of groundwater extraction and monitoring wells, installation of filtration systems and

monitoring for selected residences and monitoring of groundwater, surface water and sediments, as set forth in that Decree, to address groundwater contaminated above Groundwater Performance Standards both on-site and off-site. On June 25, 1999, EPA issued the OUI ROD Amendment for Groundwater. The Court entered that consent decree on September 10, 1999.

17. The Parties to this Decree have agreed that the Owner/Operators, as defined in Section IV, infra, will perform the portion of the remedial action at the Site relating to the source of the contamination. That remedy may consist of the impermeable synthetic landfill cap that EPA selected in the Remedial Design it approved for the Site in August 1997 and related measures, or such other modifications or amendments thereto as EPA may select or approve, or it may consist of a source control utilizing enhanced landfill gas extraction, or, if that remedy fails, some other measures to address the source of the contamination. The Parties to the Decree have agreed that the Owner/Operators also will perform operation and maintenance activities relating to the Source Control Work.

18. The Keystone Defendants and Related Keystone Parties have limited ability to pay for the Source Control Work. The Parties to this Consent Decree have agreed that certain of the assets of the Keystone Defendants and Related



Keystone Parties will be used to clean up the Adams County Landfill (aka ADSCO Landfill), another landfill operated by a subsidiary of the Keystone Defendants (and any alleged successors thereto) pursuant to a separate settlement agreement with PADEP. The Keystone Defendants and Related Keystone Parties also will make financial contributions to Waste Management, as set forth in separate settlement agreements between those parties, and will provide, among other things, site access and access to information as required under this Consent Decree.

19. In consideration of these obligations, and in order to allow the value and income-generating potential of certain remaining assets of the Keystone Defendants and Related Keystone Parties to be applied to help fund the Source Control Work, the United States agrees that, concurrent with entry of this consent decree by the Court, and following receipt of written notice from Waste Management that an enforceable private settlement agreement exists, the United States will move to withdraw with prejudice its complaint against the Keystone Defendants and Related Keystone Parties under the Federal Debt Collection Procedures Act, Civil Action No. 1:CV:97-1299. That motion will be subject to the Court's entry of this Consent Decree. The Parties also agree that,

simultaneously with the lodging of this Consent Decree, the Keystone Defendants and Related Keystone Parties will file a motion requesting the Court to dissolve the Stipulated Preliminary Injunction dated August 12, 1994, the Court's Preliminary Injunction Order dated August 14, 1995, and all subsequent orders of the Court which modify the August 14, 1995 Preliminary Injunction Order, and Waste Management, the United States and the State agree not to oppose that motion.

20. Based on the information presently available to EPA, EPA believes that the Source Control Remedial Action will be properly and promptly conducted by the Owner/Operators if conducted in accordance with the requirements of this Consent Decree and its appendices.

21. Solely for the purposes of Section 113(j) of CERCLA, the OU1 ROD, as amended, and the Source Control Remedial Action to be performed by the Owner/Operators, shall constitute a response action taken or ordered by the President.

22. The United States and the State recognize, and the Court by entering this Consent Decree finds, that this Consent Decree has been negotiated in good faith, and that implementation of this Consent Decree will expedite the cleanup of the Site and will avoid prolonged and complicated litigation between the Parties, and that this Consent Decree is fair,

reasonable, and in the public interest.

23. In accordance with the NCP and Section 121(f)(1)(F) of CERCLA, 42 U.S.C. § 9621(f)(1)(F), EPA has notified the Commonwealth of Pennsylvania and the State of Maryland of negotiations with potentially responsible parties regarding the implementation of the remedial design and remedial action for the Site, and provided them with an opportunity to participate in such negotiations and be a party to this Consent Decree. PADEP has participated in the negotiations and is a party to this Consent Decree.

24. In accordance with Section 122(j)(1) of CERCLA, 42 U.S.C. § 9622(j)(1), EPA notified the U.S. Department of the Interior and the National Oceanic and Atmospheric Administration of EPA's negotiations with potentially responsible parties regarding the release of hazardous substances at the Site to invite those agencies to assess whether such releases may have resulted in injury to the natural resources under Federal trusteeship and the Department of the Interior agreed to participate in the negotiation of this Consent Decree.

25. The defendants that have entered into this Consent Decree ("Owner/Operators") do not admit any liability arising out of the transactions or occurrences alleged in the

Complaint or the Complaint in Intervention, or in Section I of this Consent Decree, nor do they acknowledge that the release or threatened release of hazardous substance(s) at or from the Site constitutes an imminent or substantial endangerment to the public health or welfare or the environment.

NOW, THEREFORE, it is hereby Ordered, Adjudged, and Decreed:

## II. JURISDICTION

26. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1345, and 42 U.S.C. §§ 9606, 9607, and 9613(b). This Court also has personal jurisdiction over the Owner/Operators and the Related Keystone Parties. Solely for the purposes of this Consent Decree and the underlying complaints, Owner/Operators and the Related Keystone Parties waive all objections and defenses that they may have to jurisdiction of the Court or to venue in this District. Owner/Operators and the Related Keystone Parties shall not challenge the terms of this Consent Decree or this Court's jurisdiction to enter and enforce this Consent Decree.

## III. PARTIES BOUND

27. This Consent Decree applies to and is binding upon the United States, the State, and upon the Owner/Operators, the Related Keystone Parties and their

successors and assigns. Any change in ownership or corporate status of an Owner/Operator or Related Keystone Party including, but not limited to, any transfer of assets or real or personal property, shall in no way alter such Owner/Operator's or Related Keystone Parties' responsibilities under this Consent Decree.

28. Owner/Operators shall provide a copy of this Consent Decree to each contractor hired to perform the Source Control Remedial Action (as defined *infra*) required by this Consent Decree and to each person representing any Owner/Operator with respect to the Site or the Source Control Remedial Action, and shall condition all contracts entered into hereunder upon performance of the Source Control Remedial Action in conformity with the terms of this Consent Decree. Owner/Operators or their contractors shall provide written notice of the Consent Decree to all subcontractors hired to perform any portion of the Source Control Remedial Action required by this Consent Decree. Owner/Operators shall nonetheless be responsible for ensuring that their contractors and subcontractors perform the Source Control Remedial Action contemplated herein in accordance with this Consent Decree. With regard to the activities undertaken pursuant to this Consent Decree, each contractor and subcontractor shall be

deemed to be in a contractual relationship with the Owner/Operators within the meaning of Section 107(b)(3) of CERCLA, 42 U.S.C. § 9607(b)(3).

#### IV. DEFINITIONS

29. Unless otherwise expressly provided herein, terms used in this Consent Decree which are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Consent Decree or in the appendices attached hereto and incorporated hereunder, the following definitions shall apply:

a. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended as of the date of this Consent Decree, 42 U.S.C. §§ 9601 et seq.

b. "Consent Decree" shall mean this Decree and all appendices attached hereto (listed in Section XXXI). In the event of conflict between this Decree and any appendix, this Decree shall control.

c. "Contingent Remedy" shall mean the remedy, exclusive of Operation and Maintenance, selected or approved by EPA in its unreviewable discretion, in a manner not inconsistent with CERCLA and the NCP, to address the source of

contamination at the Site in the event that EPA determines that the ELGE Remedy failed to meet and maintain all of the ELGE Remedy Performance Standards. The Contingent Remedy may include, but is not limited to, the Landfill Cap Remedy, the contingent remedies identified in the PRAP, or any other measures that address the source of contamination at the Site and protect human health and the environment.

d. "Contingent Remedy Operation and Maintenance" shall mean all activities required to maintain the effectiveness of the Contingent Remedy as required under the Operation and Maintenance Plan approved or developed by EPA pursuant to this Consent Decree.

e. "Contingent Remedy Performance Standards" shall mean those performance standards selected or approved by EPA in its unreviewable discretion, in a manner not inconsistent with CERCLA and the NCP, to be attained by any Contingent Remedy.

f. "Day" shall mean a calendar day unless expressly stated to be a Working day. "Working day" shall mean a day other than a Saturday, Sunday, or Federal holiday. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or Federal holiday, the period shall run until the close of business of the next Working day.

g. "Department of the Interior" or "DOI" shall mean the United States Department of the Interior and any successor departments or successor agencies of the United States.

h. "Duly Authorized Representative" shall mean a person set forth or designated in accordance with the procedures set forth in 40 C.F.R. § 270.11(b).

i. "EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

j. "ELGE" shall mean enhanced landfill gas extraction.

k. "ELGE Remedy" shall mean any remedy for source control, exclusive of Operation and Maintenance, selected or approved by EPA that incorporates use of enhanced landfill gas extraction (ELGE) to permanently treat volatile organic compounds and other hazardous substances at the source of contamination in the Landfill. It shall also include measures related to erosion control and stormwater management at the Site; regrading of the Landfill surface and surrounding areas; institutional controls; excavation of wastes found outside the fence around the Landfill perimeter and its consolidation with wastes within the Landfill; and all actions set forth in the OU-1 ROD Amendment for Source Control. The ELGE Remedy shall



also include any augmentation, expansion, iterative or equivalent measures or technology, and optimization of the ELGE technology that EPA selects or requires to demonstrate compliance with or to meet the ELGE Remedy Performance Standards. Those measures expressly may include significant changes to the remedy in scope, performance or cost, within the meaning of 40 C.F.R. §300.435(c)(2).

1. "ELGE Remedy Operation and Maintenance" shall mean all activities required to maintain the effectiveness of the ELGE Remedy as required under the Operation and Maintenance Plan approved or developed by EPA pursuant to this Consent Decree.

m. "ELGE Remedy Performance Standards" shall mean those performance standards selected or approved by EPA in its unreviewable discretion, in a manner not inconsistent with CERCLA and the NCP, to be attained by the ELGE Remedy.

n. "Federal Future Response Costs" for purposes of this Decree shall mean those costs incurred by the United States in the event that the United States takes over the Source Control Remedial Action as provided in Section XXIII, or incurs response costs to obtain access or to implement institutional controls (including, but not limited to, the amount of just compensation, pursuant to Section X), performs

an Emergency Response related to Source Control Remedial Action under Section XVI, or incurs costs in enforcing the Consent Decree, including the costs incurred in connection with any Dispute Resolution in which the United States prevails or the Owner/Operators unilaterally withdraw their claim(s).

o. "Final Remedial Action" shall mean all those activities for the Source Control Remedial Action and the Groundwater Remedial Action.

p. "Groundwater Performance Standards" shall mean the clean-up standards and other measures of achievement for the Groundwater Remedial Action, as set forth in the OUI ROD, the UAO, and OUI ROD Amendment for Groundwater, or as modified by EPA.

q. "The Groundwater Remedial Action" shall mean those response actions required by the OUI ROD, the UAO, and the OUI ROD Amendment for Groundwater pertaining to groundwater capture, containment, and remediation, and protection of drinking water wells, as well as any response actions that the Settling Generator Defendants are obligated to perform pursuant to their Consent Decree with the United States and PADEP in the event it is entered, specifically including, but not limited to, construction of a groundwater treatment plant to treat groundwater extracted from the Site; construction of a system

of groundwater extraction and monitoring wells that capture and contain groundwater emanating from the Site that is contaminated in excess of Groundwater Performance Standards; installation of filtration systems and monitoring for certain residences; the capture zone analyses; monitoring of groundwater, surface water and sediments set forth in the OUI ROD, the UAO, and OUI ROD Amendment for groundwater; the hydrogeological evaluation report; operation and maintenance of the foregoing groundwater pump and treat systems and the residential filtration systems; the bog turtle survey and measures to address potential impacts on bog turtles and/or their habitat if bog turtles are found or identified during the survey. The Groundwater Remedial Action includes Groundwater Operation and Maintenance and excludes the Source Control Work at the Site.

r. "HSCA" shall mean the Pennsylvania Hazardous Sites Cleanup Act, 35 P.S. §§ 6020.101 et seq.

s. "Interest" shall mean, except where otherwise provided, interest at the rate specified for interest on investments of the Hazardous Substance Superfund established under Subchapter A of Chapter 98 of Title 26 of the U.S. Code, compounded on October 1 of each year, in accordance with 42 U.S.C. § 9607(a).

t. "The Keystone Defendants" shall mean Keystone Sanitation Corporation, Inc., Kenneth Noel, and Anna Noel.

u. "Landfill" shall mean that portion of the Site at which material containing a hazardous substance under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14), has been disposed.

v. "Landfill Cap Remedy" shall mean those response actions, exclusive of Landfill Cap Operation and Maintenance, required to implement those portions of the OUI ROD relating to construction of a synthetic impermeable cap and active gas extraction system, stormwater management, and related institutional controls, as further delineated in the final Remedial Design already approved by EPA on August 22, 1997. EPA in its unreviewable discretion may amend or modify that final Remedial Design in a manner not inconsistent with CERCLA or the NCP.

w. "Landfill Cap Remedy Operation and Maintenance" shall mean operation and maintenance activities to maintain the effectiveness of the Landfill Cap Remedy.

x. "Landfill Cap Remedy Performance Standards" shall mean the performance standards for the impermeable cap set forth at pages 46-47 of the 1990 OUI ROD, except that the cap shall not consist of a 1 foot clay layer but rather shall

consist of a synthetic layer as set forth on page 46 of the OUI ROD and as further delineated in the 1997 Remedial Design approved by EPA. EPA in its unreviewable discretion may amend or modify the Landfill Cap Remedy Performance Standards in a manner not inconsistent with CERCLA or the NCP in the event it elects in its unreviewable discretion to modify or amend the Landfill Cap Remedy.

y. "Matters Addressed in the Settlement" as that term is used in CERCLA Section 113(f)(2), 42 U.S.C. § 9613(f)(2), shall mean (a) all response actions taken or to be taken at the Site, including but not limited to response actions to implement the OUI ROD, the OUI ROD Amendment for Groundwater, the OUI ROD Amendment for Source Control, the Groundwater Remedial Action, the Source Control Work, and work performed under Paragraph 55 (Modification of the Landfill Cap Remedy and Operation and Maintenance), and/or 69 (Modification of the ELGE Remedy and Operation and Maintenance) and under Section VIII (Remedy Review) of this Decree; (b) all CERCLA response costs incurred or to be incurred by the United States, the State, or any other person, including private parties, with respect to the Site; (c) all HSCA response costs incurred or to be incurred by the State or any other person, including private parties, with respect to the Site; (d) federal, state and

private party claims for Natural Resource Damages; and (e) claims for civil penalties or treble damages under CERCLA Sections 106(b) or 107(c)(3), 42 U.S.C. §§ 9606(b) or 9607(c)(3). The Matters Addressed in this Settlement do not include (1) those response costs, response actions, or federal claims for Natural Resource Damages as to which the United States has reserved its rights under this Consent Decree (except for claims for failure to comply with this Decree), in the event that the United States asserts rights against Owner/Operators coming within the scope of such reservations; or (2) those response costs, response actions, or state claims for Natural Resource Damages as to which the State has reserved its rights under this Consent Decree (except for failure to comply with this Decree), in the event that the State asserts rights against Owner/Operators coming within the scope of such reservations.

z. "Municipal Solid Waste" shall mean all waste materials generated by households, including single and multi-family residences, and hotels and motels. The term also includes waste materials generated by commercial, institutional, and industrial sources, to the extent such wastes are essentially the same as waste normally generated by households. Examples of Municipal Solid Waste include food and

yard waste, paper, clothing, appliances, consumer product packaging, disposable diapers, office supplies, cosmetics, glass and metal food containers, elementary or secondary school science laboratory waste, and household hazardous waste. The term does not include combustion ash generated by resource recovery facilities or municipal incinerators, or waste from manufacturing or processing (including pollution control) operations not essentially the same as waste normally generated by households.

aa. "National Contingency Plan" or "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, as amended as of the date of this Consent Decree.

bb. "Natural Resource Damages" shall mean damages, including costs of damage assessment, recoverable under Section 107 of CERCLA, 42 U.S.C. § 9607, and under Sections 301(14) and 702(a)(4) of HSCA, 35 P.S. §§ 6020.301(4) and 6020.702(a)(4), for injury to, destruction of, or loss of any and all natural resources at the Site, as defined in Section 101 of CERCLA, 42 U.S.C. § 9601, within the trusteeship of the United States Department of the Interior and the PADEP.

cc. "OUI Record of Decision" or "OUI ROD" shall mean

the EPA Record of Decision for the first Operable Unit (OU1) and all attachments thereto, relating to the Keystone Sanitation Landfill Superfund Site, which document is set forth in Appendix A attached hereto, and which was signed on September 30, 1990, by the Regional Administrator, EPA Region III.

dd. "Original Generator Defendants" or "OGDs" shall mean C & J Clark America, Inc.; Quebecor Printing Fairfield Inc.; The Esab Group Inc.; Hanover Bronze and Aluminum Foundry, Inc.; Kemper Industries, Inc.; R.H. Sheppard Co., Inc.; SKF USA Inc.; and the Genlyte Group Incorporated.

ee. "OU1 Record of Decision Amendment for Source Control" or "OU1 ROD Amendment for Source Control" shall mean the amendment to the OU1 ROD (or comparable decision document) selecting, inter alia, response actions to address the source of contamination at the Site, including but not limited to the ELGE Remedy and/or the Contingent Remedy.

ff. "OU1 Record of Decision Amendment for Groundwater" or "OU1 ROD Amendment for Groundwater" shall mean the June 25, 1999, amendment to the OU1 ROD (or comparable decision document) selecting, inter alia, response actions pertaining to the Groundwater Remedial Action.

gg. "Owner/Operators" shall mean the Keystone



Defendants and Waste Management, as defined herein.

hh. "PADEP" shall mean the Pennsylvania Department of Environmental Protection, formerly the Pennsylvania Department of Environmental Resources, and any successor departments or agencies of the State.

ii. "Paragraph" shall mean a portion of this Consent Decree identified by an arabic numeral or an upper case letter.

jj. "Parties" shall mean the United States, the State, the Owner/Operators, and the Related Keystone Parties.

kk. "Plaintiffs" shall mean the United States of America and the State.

ll. "Project Manager" shall mean the Owner/Operators' Supervising Contractor.

mm. "Proposed Remedial Action Plan" or "PRAP" shall mean the Proposed Remedial Action Plan dated June 1, 2000, for amendment of the source control remedy.

nn. "RCRA" shall mean the Solid Waste Disposal Act, as amended as of the date of this Consent Decree, 42 U.S.C. §§ 6901 et seq. (also known as the Resource Conservation and Recovery Act).

oo. "Related Keystone Parties" shall mean Brian K. Noel, Lisa A. Noel, Lori J. Slusser (nee Noel), Bart F. Noel, Flatbush Golf Course, Inc., The Noel Family Trust, Bart F. Noel

Separate Trust, Brian K. Noel Separate Trust, Lisa A. Noel Separate Trust, Lori J. Noel Separate Trust and Mary Kelly, Trustee of the Noel Family Trust and Separate Trusts.

pp. "Related persons" shall mean the Owner/Operators' officers, directors, and shareholders, to the extent their liability arises from the liability, conduct or activities of the Owner/Operators at the Site.

qq. "Record of Decision" or "ROD" shall mean a document in which EPA selects a remedy for an operable unit at the Site, prepared pursuant to Section 117(b) of CERCLA, 42 U.S.C. § 9617(b) and 40 C.F.R. § 300.430(f).

rr. "Section" shall mean a portion of this Consent Decree identified by a roman numeral.

ss. "Sewage Sludge" shall mean solid, semisolid, or liquid residue removed during the treatment of municipal waste water, domestic sewage, or other waste water at or by publicly owned or federally owned treatment works.

tt. "Site" shall mean the Keystone Sanitation Landfill Superfund Site, which consists of an inactive privately owned landfill situated on an approximately 40-acre tract of land. The Site is located in Union Township, Adams County, Pennsylvania, southwest of Hanover, Pennsylvania, and is approximately 800 feet north of the Pennsylvania-Maryland

border, and depicted more particularly in Figure 1 of Appendix A. Notwithstanding the Site Boundaries depicted in Appendix A, the Site shall include the areal extent of contamination, including but not limited to groundwater affected by the release of hazardous substances from the Keystone Sanitation Company Landfill, and areas where hazardous substances have otherwise come to be located, and all suitable areas in very close proximity to the contamination that are necessary for the implementation of the Final Remedial Action, as provided in the NCP.

uu. "Source Control Operation and Maintenance" shall mean all activities required to maintain the effectiveness of the Source Control Remedial Action as required under the Operation and Maintenance Plan approved or developed by EPA, after consultation with PADEP, pursuant to this Consent Decree.

vv. "Source Control Performance Standards" shall mean, as applicable, the ELGE Remedy Performance Standards, the Contingent Remedy Performance Standards, and/or the Landfill Cap Remedy Performance Standards.

ww. "Source Control Remedial Action" shall mean any remedial alternative, exclusive of Operation and Maintenance, selected by EPA to address the source of contamination at the Site, and may consist of the Landfill Cap Remedy; the ELGE

Remedy; and/or the Contingent Remedy. The Source Control Remedial Action shall not include the Groundwater Remedial Action.

xx. "The Source Control Remedial Action Work Plan" shall mean the document developed for implementation of the Source Control Remedial Action by the Owner/Operators and any amendments thereto.

yy. "The Source Control Remedial Design" shall mean the remedial design of the Source Control Remedial Action and any amendments thereto.

zz. "Source Control Work" shall mean all activities the Owner/Operators are required to perform under this Consent Decree, including Source Control Operation and Maintenance, except those required by Section XXVII (Retention of Records).

aaa. "State" shall mean the Commonwealth of Pennsylvania, Department of Environmental Protection.

bbb. "State Future Response Costs" for purposes of this Decree shall mean those costs, including direct and indirect costs, incurred by the State in the event that the United States takes over the Source Control Remedial Action as provided in Section XXIII, Paragraph 177, or PADEP takes over Source Control Operation and Maintenance, including costs incurred by the State pursuant to CERCLA 104(c)(3), those

response costs incurred by the States to obtain access pursuant to Section X, those costs incurred by the State in an Emergency Response related to Source Control Remedial Action under Section XVI or those costs incurred by the State in enforcing the Consent Decree, including the costs incurred in connection with any Dispute Resolution in which the State prevails or the Owner/Operators unilaterally withdraw their claims.

ccc. "State Past Response Costs" for purposes of this Decree shall mean those direct and indirect costs that the State incurred at or in connection with the Site, through the date of entry of this Consent Decree, including but not limited to employee costs, attorney fees, contractor costs, sampling costs, laboratory costs and oversight costs, as defined in section 103 of HSCA, 35 P.S. § 6020.103.

ddd. The "UAO" shall mean the CERCLA § 106 Unilateral Administrative Order issued to the Keystone Defendants and others by EPA Region III, EPA Docket No. III-91-56-DC, issued on June 28, 1991, as modified on September 6, 1991.

eee. The Waste Management UAO" shall mean the UAO issued to Waste Management in September, 1996, by EPA Region III, EPA Docket No. III-96-93-DC.

fff. "United States" shall mean the United

States of America and any agencies or departments thereof.

ggg. "Waste Management" shall mean Waste Management of Pennsylvania, Inc., Waste Management of Maryland, Inc., and any successor thereto.

hhh. "Waste Material" shall mean (1) any "hazardous substance" under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); and (2) any "pollutant or contaminant" under Section 101(33), 42 U.S.C. § 9601(33).

#### V. GENERAL PROVISIONS

30. Objectives of the Parties. The objectives of the Parties in entering into this Consent Decree are to protect public health or welfare or the environment at the Site by the design and implementation of response actions at the Site by the Owner/Operators, to resolve all claims among the Parties to this agreement as provided in this Consent Decree, and to avoid additional protracted litigation at the Site.

31. Commitments by Owner/Operators and Related Keystone Parties. Owner/Operators shall finance and perform the Source Control Remedial Action and Source Control Operation and Maintenance as set forth in this Consent Decree. Owner/Operators shall also finance and perform the operation and maintenance activities relating to the source of the contamination at the Site, regardless of what remedy EPA

chooses to control the source of contamination.

Owner/Operators also shall reimburse the United States and the State for Response Costs and Natural Resource Damages as provided in this Consent Decree. The Related Keystone Parties also shall contribute to funding the Source Control Work, as set forth in a separate settlement agreement with Waste Management.

32. Notwithstanding the joint and several nature of the Owner/Operators' and Related Keystone Parties' obligations under this Consent Decree, the United States and the State recognize that the Owner/Operators and Related Keystone Parties have agreed that the obligations of Owner/Operators and Related Keystone Parties to finance and perform the Source Control Remedial Action and to pay Future Response Costs under this Consent Decree will be allocated as set forth herein:

A. Waste Management shall finance and perform the Source Control Work as set forth in this Consent Decree, as well as any work-related provisions of the Decree, including but not limited to obligations set forth in Sections VII-IX; work-related reporting obligations (Section XI); EPA Approval of Plans and Other Submissions (Section XII); Assurance of Ability to Complete the Source Control Work (Section XIV); Certification of Completion (Section XV); Emergency Response

(Section XVI); Indemnification and Insurance (XIX) (Section XIX); Payment, Cost-Saving, and Reimbursement (Section XVIII); and shall reimburse the Plaintiffs for Federal and State Future Response Costs, State Past Response Costs, and Federal and State Natural Resource Damages (Section XVII).

B. The Keystone Defendants and Related Keystone Parties have limited ability to pay. Their assets are not sufficient to provide for the full estimated costs of implementation of the Source Control Work and the projected response costs at the ADSCO Landfill. The Keystone Defendants shall make financial contributions to Waste Management for the Source Control Work, on terms agreed to by those Parties, and shall provide access and institutional controls (Section X); provide information (Section XXVI); provide notice to successors in title (Paragraph 34); execute any permits requiring the signature of landowners (Paragraph 35); retain records (Section XXVII); and undertake any other obligations as provided for in this Decree. The Keystone Defendants also shall separately contribute to clean up of the ADSCO Landfill through a settlement with PADEP. The Related Keystone Parties shall contribute to funding the Source Control Work and to funding the cleanup of the ADSCO Landfill, as set forth in settlements with Waste Management and PADEP.



C. The United States and the State will accept full performance, as determined by EPA, of the Source Control Work and other work-related obligations as set forth in Paragraph 32.A, and payment of Federal Future Response Costs, State Future Response Costs, and Natural Resource Damages by Waste Management, as full performance by the Owner/Operators at the Site. The United States and the State agree that neither will seek the performance of the work-related obligations or payments in the foregoing sentence from the Keystone Defendants unless EPA determines that there is a failure to adequately perform such work-related obligations and/or meet such payment obligations under this Consent Decree and such failure continues for a period of 30 days following written notice of such failure to all Owner/Operators (except that such period may be reduced in the event that EPA determines that an emergency exists). In the event of a failure by or on behalf of Waste Management to timely cure or correct any non-performance, Plaintiffs may elect to forward a written request to the Keystone Defendants directing that within ten (10) days of receipt the Keystone Defendants commence or resume performance of the Source Control Work and make any payments owed by Waste Management. EPA's determination to seek performance from the Keystone Defendants under this Paragraph

is not subject to any review or challenge, judicial or otherwise, by any Owner/Operator through the Dispute Resolution procedures in Section XXI of this Decree, or in any other manner. This Paragraph does not apply to the requirements of Section X (Access and Institutional Controls), and Section XXVII (Retention of Records).

D. In the event of the insolvency or other failure of any one or more of the Keystone Defendants to satisfy their obligations under this Decree, Waste Management shall complete the Source Control Work and meet all other requirements in this Consent Decree. In the event that any of the Owner/Operators files for bankruptcy or is placed involuntarily in bankruptcy proceedings, such Owner/Operator shall notify the United States within ten days of such filing.

33. Compliance With Applicable Law. All activities undertaken by Owner/Operators pursuant to this Consent Decree shall be performed in accordance with the requirements of all applicable federal and state laws and regulations. Owner/Operators must also comply with all applicable or relevant and appropriate requirements of all Federal and state environmental laws that pertain to the Source Control Remedial Action as set forth in the OUI ROD and the OUI ROD Amendment for Source Control. The activities conducted pursuant to this

Consent Decree, if approved by EPA, shall be considered to be consistent with the NCP.

34. Notice to Successors-in-Title

a. With respect to any property owned or controlled by the Owner/Operators that is located within the Site, within 30 days after the entry of this Consent Decree, the Owner/Operators shall submit to EPA for review and approval a notice to be filed with the Recorder's Office (or Registry of Deeds or other appropriate office), Adams County, Commonwealth of Pennsylvania, which shall provide notice to all successors-in-title that the property is part of the Site, that EPA selected a remedy for the Site in 1990, that the remedy selection was subsequently amended, and that potentially responsible parties have entered into a Consent Decree requiring implementation of the remedy as amended. Such notice(s) shall identify the United States District Court in which the Consent Decree was filed, the name and civil action number of this case, and the date the Consent Decree was entered by the Court. The Owner/Operators (or the Related Keystone Parties if such party owns or controls such property) shall record the notice(s) within 10 days of EPA's approval of the notice(s). The Owner/Operators (or the Related Keystone Parties if such party owns or controls such property) shall

provide EPA with a certified copy of the recorded notice(s) within 10 days of recording such notice(s).

b. At least 30 days prior to the conveyance of any interest in property located within the Site including, but not limited to, fee interests, leasehold interests, and mortgage interests, the Owner/Operators or Related Keystone Parties conveying the interest shall give the grantee written notice of (i) this Consent Decree, (ii) any instrument by which an interest in real property has been conveyed that confers a right of access to the Site (hereinafter referred to as "access easements") pursuant to Section X (Access and Institutional Controls), and (iii) any instrument by which an interest in real property has been conveyed that confers a right to enforce restrictions on the use of such property (hereinafter referred to as "restrictive easements") pursuant to Section X (Access and Institutional Controls). At least 30 days prior to such conveyance, the Owner/Operators or Related Keystone Parties conveying the interest shall also give written notice to EPA and the State of the proposed conveyance, including the name and address of the grantee, and the date on which notice of the Consent Decree, access easements, and/or restrictive easements was given to the grantee.

c. In the event of any such conveyance, the

obligations of the Owner/Operators (or such Related Keystone Party if making the conveyance) under this Consent Decree, including, but not limited to, its obligation to provide or secure access and institutional controls, as well as to abide by such institutional controls, pursuant to Section X (Access and Institutional Controls) of this Consent Decree, shall continue to be met by the Owner/Operators. In no event shall the conveyance release or otherwise affect the obligation of the Owner/Operators or such Related Keystone Party if making the conveyance to comply with all provisions of this Consent Decree, absent the prior written consent of EPA. If the United States approves, the grantee may perform some or all of the Work under this Consent Decree.

35. Permits. As provided in Section 121(e) of CERCLA and Section 300.400(e) of the NCP, no permit shall be required for any portion of the Source Control Work conducted entirely on-Site (i.e., within the areal extent of contamination or in very close proximity to the contamination and necessary for implementation of the Source Control Work). Where any portion of the Source Control Work that is not on-Site requires a federal, or state permit or approval, Owner/Operators shall submit timely and complete applications and take all other actions necessary to obtain all such permits

or approvals.

36. The Owner/Operators may seek relief under the provisions of Section XX (Force Majeure) of this Consent Decree for any delay in the performance of the Source Control Work resulting from a failure to obtain, or a delay in obtaining, any permit required for the Source Control Work, provided they have submitted the necessary applications and completed all actions required to obtain the permit.

37. This Consent Decree is not, and shall not be construed to be, a permit issued pursuant to any federal, state or local statute, regulation, or ordinance.

VI. OBLIGATION OF OWNER/OPERATORS TO PERFORM SOURCE CONTROL WORK AT THE SITE

38. The UAO and the Waste Management UAO shall remain in effect until this Consent Decree is entered, at which time the UAO and the Waste Management UAO shall terminate as to the Owner/Operators. The Owner/Operators are obligated under this Consent Decree to finance and perform the Source Control Work (including Source Control Operation and Maintenance) at the Site as provided in this Decree.

39. EPA is in the process of evaluating the selection of ELGE at the Site. EPA has published a Proposed Remedial Action Plan for public comment that summarizes an ELGE Remedy. If at any time prior to issuance of an OUI ROD

Amendment for Source Control, EPA determines that ELGE is not a feasible remedial alternative, EPA will provide written notice to the Owner/Operators to proceed with the Landfill Cap Remedy.

40. EPA fully reserves its right to review and evaluate public comment concerning the proposed remedial alternative, and to make its remedy selection in light of such comments and the administrative record, in a manner not inconsistent with the NCP. EPA's remedy selection process is not subject to judicial review or to any other challenge by the Owner/Operators.

41. If, after review of public comment, EPA, in its unreviewable discretion, does not select ELGE as a remedial alternative at the Site, the Owner/Operators shall implement the Landfill Cap Remedy and Landfill Cap Remedy Operation and Maintenance.

42. After review of public comment, EPA may select the ELGE Remedy as a remedial alternative for source control at the Site. In that case, EPA's determination will be finalized in an OUI ROD Amendment for Source Control or comparable document. EPA reserves all its rights and authorities to select response actions at the Site as it determines appropriate to protect human health and the environment. The Owner/Operators shall not have the right to challenge or seek

judicial review of EPA's remedy selection.

43. If EPA selects the ELGE Remedy at the Site, the Owner/Operators shall perform the ELGE Remedy and the ELGE Remedy Operation and Maintenance as required by this Consent Decree.

44. If, after an opportunity for PADEP to review and comment, EPA determines that the ELGE Remedy and/or ELGE Remedy Operation and Maintenance has failed or will fail to meet and maintain the ELGE Remedy Performance Standards, EPA may issue a determination of remedy failure. Such determination shall be in writing. The Owner/Operators may seek review of EPA's determination that the ELGE Remedy and/or the ELGE Remedy Operation and Maintenance has failed or will fail to meet and maintain the ELGE Remedy Performance Standards, through the dispute resolution provisions of Section XXI. If EPA prevails in Dispute Resolution, or if there is no dispute, concerning EPA's determination, EPA will select a Contingent Remedy in a manner not inconsistent with CERCLA and the NCP. EPA will advise the Owner/Operators in writing of the Contingent Remedy it selects no earlier than 60 days after (1) issuance of EPA's written determination of ELGE Remedy failure; or (2) EPA prevailing on a dispute concerning its determination of ELGE Remedy failure, whichever is later.



45. EPA proposed certain Contingent Remedies in the Proposed Remedial Action Plan, and intends to include them in the OU1 ROD Amendment for Source Control, subject to a review of public comment and consultation with PADEP. Waste Management shall have the right to recommend to EPA which of the potential contingent remedies in the OU-1 ROD Amendment for Source Control should be selected, and/or to propose to EPA a contingent remedy other than in the OU1 ROD Amendment for Source Control, based on new data, technology, field conditions or other considerations, no later than 30 days from receipt of EPA's written determination of remedy failure or upon EPA prevailing on a dispute concerning its determination of ELGE Remedy failure, whichever is later. EPA shall have the right to reject, modify, select, or take any other actions concerning the contingent remedies recommended or proposed by Waste Management, and EPA's decision or actions concerning any such recommendation or proposal shall not be subject to judicial review.

46. EPA's selection of a Contingent Remedy shall not be subject to judicial review, through the dispute resolution procedures of Section XXI or otherwise. The Owner/Operators shall implement the Contingent Remedy and Contingent Remedy Operation and Maintenance that EPA selects.

47. If EPA selects the Landfill Cap Remedy or the Contingent Remedy at the Site, EPA will share the cost of the Landfill Cap Remedy or the Contingent Remedy to the extent forth in Section XVIII below. The Owner/Operators' agreement to forego judicial review and dispute resolution concerning remedy selection issues is part of the consideration for EPA's cost-sharing.

48. Nothing in this Consent Decree shall be interpreted or construed as a commitment or requirement that the United States obligate or pay funds in contravention of the Anti-Deficiency Act, 31 U.S.C. § 1341, or any other applicable provision of law.

VII. PERFORMANCE OF THE SOURCE CONTROL WORK BY THE OWNER/OPERATORS

A. Selection of Contractors.

49. Supervising Contractor.

(i) All aspects of the work to be performed by Owner/Operators pursuant to Sections VII (Performance of the Work by Owner/Operators), VIII (Remedy Review), IX (Quality Assurance, Sampling, and Data Analysis), and XVI (Emergency Response) of this Consent Decree shall be under the direction and supervision of the Supervising Contractor, the selection of which shall be subject to

acceptance or disapproval by EPA after a reasonable opportunity for review and comment by the State. Within ten (10) days after entry of the Consent Decree, the Owner/Operators' receipt of EPA's written notification to proceed with the Landfill Cap Remedy, or issuance of the OUI ROD Source Control Amendment, whichever is later, Defendants shall notify EPA and the State in writing of the name, title, and qualifications of any contractor proposed to be the Supervising Contractor. EPA will issue a notice of disapproval or acceptance of the selection of such Supervising Contractor. If at any time thereafter, Owner/Operators propose to change a Supervising Contractor, Owner/Operators shall give such notice to EPA and the State and must obtain a notice of acceptance of such change from EPA, after a reasonable opportunity for review and comment by the State, before the new Supervising Contractor performs, directs, or supervises any Work under this Consent Decree.

(ii) If EPA disapproves the selection of a proposed Supervising Contractor, EPA will notify Owner/Operators in writing. Owner/Operators shall submit to EPA and the State a list of at least three contractors, including the qualifications of each contractor, that would be acceptable to them within thirty (30) days of receipt of EPA's notice. EPA will provide written notice of the names of any

contractor(s) whose selection it would accept. Owner/Operators may select any contractor from that list and shall notify EPA and the State of the name of the contractor selected within twenty-one (21) days of EPA's written notice.

(iii) If EPA fails to provide written notice of its acceptance or disapproval as provided in this Paragraph and this failure prevents the Owner/Operators from meeting one or more deadlines in a plan approved by the EPA pursuant to this Consent Decree, Owner/Operators may seek relief under the provisions of Section XX (Force Majeure) of this Consent Decree.

50. Other Contractors and Subcontractors.

(i) The Owner/Operators shall submit to EPA and the State for acceptance by EPA the names and qualifications of any additional contractors and subcontractors they propose to use to satisfy any requirement of this Consent Decree before such contractor or subcontractor performs any Work. If EPA does not respond with a notice accepting or disapproving the proposal for additional contractors and subcontractors within fourteen (14) days of receipt by EPA of Owner/Operators' selections, the proposal for additional contractors and subcontractors shall be deemed accepted. In the event EPA disapproves any proposed contractor or

subcontractor, Owner/Operators shall submit to EPA and the State a list of at least three contractors or subcontractors, including the qualifications of each, that would be acceptable to them within ten (10) days of receipt of EPA's notice. EPA will provide written notice of the names of any contractor(s) or subcontractor(s) whose selection it would accept. Owner/Operators may select any contractor or subcontractor from that list and shall notify EPA and the State of the name of the contractor or subcontractor selected within five (5) days of EPA's written notice.

B. Remedial Action in the Event the Landfill Cap Remedy Is Selected.

51. Within 30 days after entry of the Consent Decree or the Owner/Operators receive written notice from EPA to proceed with the Landfill Cap Remedy, whichever is later, Owner/Operators shall submit to EPA and the State a work plan for the performance of the Landfill Cap Remedy at the Site ("Remedial Action Work Plan"). The Remedial Action Work Plan shall be developed consistent with the 1997 Remedial Design to be provided by EPA to Owner/Operators. The Remedial Action Work Plan shall provide for construction and implementation of the Landfill Cap Remedy, as set forth in the design plans and specifications in the 1997 Remedial Design. In the Work Plan,

the Owner/Operators may submit proposals for minor technical modifications of the Remedial Design, provided that such changes are not significant and do not fundamentally alter the Remedial Design. Permissible technical changes are expected to include, among other things, modifications to cap grading, drainage and surface water management features, and condensate management. EPA's review of such proposals shall not be subject to the dispute resolution procedures of this Decree or to judicial review. Upon its approval by EPA, the Remedial Action Work Plan shall be enforceable under this Consent Decree. At the same time as they submit the Remedial Action Work Plan, Owner/Operators shall submit to EPA and the State a Health and Safety Plan (HASP) for field activities required by the Remedial Action Work Plan which conforms to the applicable Occupational Safety and Health Administration and EPA requirements including, but not limited to, 29 C.F.R. § 1910.120.

52. The Remedial Action Work Plan shall include the following:

1. the schedule for completion of the Remedial Action;
2. schedule for developing and submitting

- other required Remedial Action plans;
3. methodology for implementation of the Construction Quality Assurance Plan ("CQAP") (the CQAP, which shall detail the approach to quality assurance during construction activities at the Site, shall specify a quality assurance official ("QA Official"), independent of the Construction Contractor, to conduct a quality assurance program during the construction phase of the project;
  4. methods for satisfying permitting requirements;
  5. methodology for implementation of the Operation and Maintenance Plan;
  - 6.. methodology for implementation of the Remedial Action Contingency Plan;
  7. tentative formulation of the Remedial Action team (including, but not limited to, the Supervising Contractor);
  8. construction quality control plan (by constructor); and
  9. methodology for decontamination of

equipment and the disposal of contaminated material.

53. Upon approval of the Remedial Action Work Plan by EPA, after a reasonable opportunity for review and comment by the State, Owner/Operators shall implement the activities required under the Remedial Action Work Plan. The Owner/Operators shall submit to EPA and the State all plans, submittals, or other deliverables required under the approved Remedial Action Work Plan in accordance with the approved schedule for review and approval pursuant to Section XII (EPA Approval of Plans and Other Submissions). Unless otherwise directed by EPA, Owner/Operators shall not commence physical Remedial Action activities at the Site prior to approval of the Remedial Action Work Plan.

54. The Owner/Operators shall continue to implement the Landfill Cap Remedy and the Landfill Cap Remedy Operation and Maintenance until the Landfill Cap Remedy Performance Standards are achieved and for so long thereafter as is otherwise required under this Consent Decree.

55. Modification of the Landfill Cap Remedy and Operation and Maintenance:

a. If EPA determines that modification of the Work is necessary to achieve and maintain the Landfill Cap Remedy



Performance Standards or to carry out and maintain the effectiveness of the Landfill Cap Remedy set forth in the ROD, EPA may (1) require that such modification be incorporated into the Work Plan, Landfill Cap Remedy Operation and Maintenance plan, and/or any other plan relating to such Work, and/or (2) require that Owner/Operators submit a plan for EPA approval which incorporates such modification to the Work and implement such approved plan. Provided, however, that a modification may be required pursuant to this Paragraph only to the extent that it is consistent with the scope of the Landfill Cap Remedy selected in the OUI ROD.

b. For the purposes of these Paragraphs pertaining to Modification of the Landfill Cap Remedy and Landfill Cap Remedy Operation and Maintenance, the "scope of the remedy selected in the ROD" means:

- tasks employing a technology or combination of technologies discussed on page 46-47 [Selected Remedy] of the ROD relating to the Landfill Cap Remedy to achieve and maintain the objectives described in the ROD. The technologies discussed on page 46-47 of the ROD relating to the Landfill Cap Remedy include a cap meeting, at a minimum, the following requirements: (1) a one foot clay layer or a 30 ml synthetic liner; (2) a maximum permeability of  $10^{-7}$  cm/sec; (3) a drainage layer over the cap; (4) a 2 foot soil layer over the drainage layer; (5) minimum surface slope of 3%; (6) Maximum slope of 15%; (7) minimization of soil erosion and sedimentation; (8) stormwater management based upon a 24 hour 25 year storm event; and (9) an active gas extraction system installed between the existing landfill and the impermeable cap to prevent the buildup of methane gas.

- tasks associated with monitoring of Site conditions and the effectiveness of the Landfill Cap Remedy as described in more detail in the ROD.
- implementation of institutional controls, as defined herein.

c. If Owner/Operators object to any modification determined by EPA to be necessary pursuant to this Paragraph, they may seek dispute resolution pursuant to Section XXI (Dispute Resolution), Paragraph 155 (record review). The Remedial Action Work Plan, Landfill Cap Remedy Operation and Maintenance plan, and/or related work plans shall be modified in accordance with final resolution of the dispute.

d. Owner/Operators shall implement any work required by any modifications incorporated in the Remedial Action Work Plan, Landfill Cap Remedy Operation and Maintenance plan, and/or in work plans developed in accordance with this Paragraph.

e. Nothing in this Paragraph shall be construed to limit EPA's authority to require performance of further response actions to achieve Source Control Performance Standards as otherwise provided in this Consent Decree.

56. Owner/Operators acknowledge and agree that nothing in this Consent Decree or the Remedial Design or Remedial Action Work Plans constitutes a warranty or

representation of any kind by Plaintiff[s] that compliance with the work requirements set forth in the Work Plans will achieve the Source Control Performance Standards.

C. Remedial Design/Remedial Action in the Event that EPA Issues a ROD Amendment Selecting the ELGE Remedy.

57. In the event the EPA issues the OUI ROD Source Control Amendment selecting the ELGE Remedy, within 30 days after entry of the Consent Decree or EPA issuance of the OUI ROD Source Control Amendment for the ELGE Remedy, whichever is later, Owner/Operators shall submit to EPA and the State a work plan for the design of the Remedial Action for the ELGE Remedy at the Site ("ELGE Remedial Design Work Plan" or "ELGE RD Work Plan"). The ELGE RD Work Plan shall be prepared by the individual(s) and/or entity(ies) responsible for completion of the ELGE Remedial Design, except to the extent such persons have been disapproved by EPA. The ELGE Remedial Design Work Plan shall provide for design of the remedy set forth in the OUI ROD Amendment for Source Control and for achievement of the ELGE Remedy Performance Standards and other requirements set forth in the OUI ROD, the UAO and this Consent Decree except for the Groundwater Remedial Action. Upon its approval by EPA, the ELGE Remedial Design Work Plan shall be incorporated into and become enforceable under this Consent Decree. The

Owner/Operators shall also submit to EPA and the State, at the time the ELGE Remedial Design Work Plan is submitted, a Health and Safety Plan for Pre-design, Phase I Design, and Final Design field activities which conforms to the applicable Occupational Safety and Health Administration and EPA requirements including, but not limited to, 29 C.F.R. § 1910.120.

58. The ELGE Remedial Design Work Plan shall include plans, schedules, and methodologies for implementation of all remedial design and pre-design tasks and shall include, at a minimum:

- a. a Site Management Plan;
- b. a Sampling and Analysis Plan, containing:
  - i. a Field Sampling Plan; and
  - ii. a Quality Assurance Project Plan (QAPP);
- c. a Remedial Design Contingency Plan;
- d. plans and schedules for the preparation, and submission of the Phase I Design Report and implementation of the Phase I Design (as detailed hereinafter)

59. Upon EPA's approval of the ELGE Remedial Design Work Plan as provided in Section XII (EPA Approval of Plans and Other Submissions), the Owner/Operators shall proceed with the

Phase I Design pursuant to the terms and conditions of the ELGE Remedial Design Work Plan.

60. Phase I shall include, but not be limited to, the active methane gas extraction system and that portion of the ELGE Remedy to be implemented in and around that area of the Site designated as K1. The Phase I Design Report shall include the following:

- a. . The results of all Pre-design field activities;
- b. a Basis of Design/Design Criteria Report, including:
  - i. project description;
  - ii. design requirements and provisions;
  - iii. process flow diagrams;
  - iv. operation, maintenance, and monitoring requirements;
  - v.. justification of design assumptions;
  - vi. a project delivery strategy;
  - vii. remedial action permits plan for off-site permits;
  - viii. preliminary easement/access requirements;
- and
- ix. a value engineering screen/study results
- c. Drawings and Specifications for the Phase I

Design, including:

- i. outline of general specifications;
- ii. preliminary schematics and drawings;
- iii. chemical and geotechnical data (including data from pre-design activities);
- d. a Construction Quality Assurance Plan ("CQAP") (the CQAP, which shall detail the approach to quality assurance during construction activities at the Site, shall specify a quality assurance official ("QA Official"), independent of the Construction Contractor, to conduct a quality assurance program during the construction phase of the project);
- e. A Phase I Remedial Action waste management plan;
- f. A Phase I Remedial Action decontamination plan;
- g. A Preliminary Operation and Maintenance Plan; and
- h. A Phase I Remedial Action schedule.

61. Within thirty (30) days of EPA's approval of the Phase I Design Report, the Owner/Operators shall address EPA's comments regarding the Phase I Design Report and shall then initiate construction and operation of Phase I pursuant to the terms and conditions of the approved schedule.

62. Upon completion of the Phase I construction, the Owner/Operators shall operate and monitor the system in accordance with the provisions of the approved Phase I Design report.

63. The Final Design shall include the design of the ELGE Remedy for the remaining areas of the Landfill. In accordance with the approved schedule, the Owner/Operators shall submit to EPA, for its review and approval, the Final Design Report, which shall recognize that a phased approach to the implementation of the Final Design may be necessary, and shall include the following:

- a. Results of the operation of Phase I;
- b. A Final Basis of Design/Design Criteria Report;
- c. Final drawings and specifications;
- d. A Final Construction Quality Assurance Plan (CQAP);
- e. A Final Remedial Action Sampling and Analysis Plan;
- f. A Final Remedial Action Contingency Plan;
- g. A Final Remedial Action HASP;
- h. A Final Remedial Action waste management plan;
- i. A schedule for submission of the final Operation & Maintenance Plan;

- j. A Final Remedial Action decontamination plan;
- k. A final project delivery strategy;
- l. A Final Remedial Action Schedule.

64. Within thirty (30) days of EPA's approval of the Final Design Report, the Owner/Operators shall address EPA's comments regarding the Final Design Report and shall then initiate construction and operation pursuant to the approved schedule.

65. Upon approval, approval with conditions, or modification by EPA, as provided in Section XII (EPA Approval of Plans and Other Submissions), of all components of the Final Design Report, the Final Design Report shall serve as the ELGE Remedial Action Work Plan and shall be enforceable under this Consent Decree. The Owner/Operators shall implement the activities required under the ELGE Remedial Action Work Plan in accordance with the schedules and methodologies contained therein.

66. The Owner/Operators shall submit all plans, submittals, or other deliverables required under the ELGE Remedial Action Work Plan in accordance with the approved schedule for review and approval pursuant to Section XII (EPA Approval of Plans and Other Submissions). Unless otherwise directed by EPA or required under the approved ELGE Remedial



Design Work Plan, the Owner/Operators shall not commence physical activities at the Site prior to the date for commencement set forth in the approved schedule in the ELGE Remedial Action Work Plan.

67. Resident Engineer. Following EPA approval, approval with conditions, or modification by EPA, as provided in Section XIII (EPA Approval of Plans and Other Submissions), of all components of the Phase I Design Report, and prior to commencement of any on-Site Work under the Phase I Design Report, the Final Design Report or the ELGE Remedial Action Work Plan, the Owner/Operators shall submit to EPA the name and qualifications of a Resident Engineer to be present at the Site during construction to ensure that the Work is performed in accordance with the approved Phase I Design Report, the Final Design Report and the ELGE Remedial Action Work Plan. The Resident Engineer shall be familiar with all aspects of the Phase I Design Report and Final Design Report approved by EPA. EPA retains the right to disapprove the use of any Resident Engineer proposed by Owner/Operators. In the event EPA disapproves the use of any proposed Resident Engineer, Owner/Operators shall submit to EPA and the State a list of at least three replacements, including the qualifications of each, who would be acceptable to them within five (5) days of receipt

of EPA's notice. EPA will provide written notice of the names of any replacements whose use it would accept. Owner/Operators may select any replacement from the EPA notice and shall notify EPA and the State of the name of the replacement selected within three (3) days of EPA's written notice. Owner/Operators shall ensure that the Resident Engineer performs on-Site inspections as necessary to ensure compliance with the approved Phase I Design Report, Final Design Report, and ELGE Remedial Action Work Plan and that the results of such inspections are promptly provided to Owner/Operators, EPA, and the State. The Resident Engineer may act as the QA Official.

68. Owner/Operators shall continue to implement the ELGE Remedial Action and the ELGE Remedy Operation and Maintenance until the ELGE Remedy Performance Standards are achieved and for so long thereafter as is otherwise required under this Consent Decree.

69. Modification of the Work.

a. If EPA determines that modification of the Work is necessary to achieve and maintain the ELGE Remedy Performance Standards or to carry out and maintain the effectiveness of the remedy set forth in the OUI ROD Amendment for Source Control, EPA may (1) require that such modification be incorporated into the ELGE Remedial Design Work Plan, ELGE

Remedial Action Work Plan, ELGE Remedy Operation and Maintenance plan, and/or any other plan relating to such work, and/or (2) require that Owner/Operators submit a plan for EPA approval which incorporates such modification to the work and implement such approved plan. Provided, however, that a modification may be required pursuant to this Paragraph only to the extent that it is consistent with the scope of the ELGE Remedy selected in the OUI ROD Amendment for Source Control.

b. For the purposes of these Paragraphs pertaining to modification of the ELGE Remedy and ELGE Remedy Operation and Maintenance only, the "scope of the remedy selected in the ELGE Remedy" shall include all response actions, measures, and technologies set forth in the definition of ELGE Remedy.

c. If Owner/Operators object to any modification determined by EPA to be necessary pursuant to this Paragraph, they may seek dispute resolution pursuant to Section XXI (Dispute Resolution), Paragraph 155 (record review). The ELGE Remedial Design Work Plan, ELGE Remedial Action Work Plan, ELGE Remedy Operation and Maintenance plan, and/or related work plans shall be modified in accordance with final resolution of the dispute.

d. Owner/Operators shall implement any work required by any modifications incorporated in the ELGE Remedial

Design Work Plan, ELGE Remedial Action Work Plan, ELGE Remedy Operation and Maintenance plan, and/or in work plans developed in accordance with this Paragraph.

e. Nothing in this Paragraph shall be construed to limit EPA's authority to require performance of further response actions to achieve Source Control Performance Standards as otherwise provided in this Consent Decree.

70. Owner/Operators acknowledge and agree that nothing in this Consent Decree or the ELGE Remedial Design or ELGE Remedial Action Work Plans constitutes a warranty or representation of any kind by Plaintiff[s] that compliance with the work requirements set forth in the Work Plans will achieve the Source Control Performance Standards.

D. Remedial Design/Remedial Action in the Event EPA Selects a Contingent Remedy:

71. In the event EPA determines that the ELGE Remedy, or portions thereof, has failed or will fail to meet and maintain some or all of the ELGE Remedy Performance Standards, as provided in Section VI above, EPA will identify in writing the Contingent Remedy that it has selected or approved in its unreviewable discretion.

72. If the Contingent Remedy that EPA selects or approves previously was subject to public comment and selected

as a potential contingent remedy in the OUI ROD Amendment for Source Control, EPA will identify the Contingent Remedy Design/Remedial Action deliverables and the schedule by which they must be provided to EPA at the time it notifies the Owner/Operators to proceed with the Contingent Remedy.

73. If the Contingent Remedy was not selected as a potential contingent remedy in the OUI ROD Amendment for Source Control and, pursuant to 40 C.F.R. § 300.435(c)(2)(ii), requires another amendment to the OUI ROD and a period for public comment, EPA will amend the OUI ROD and provide public comment. In that event, EPA will identify the Contingent Remedy Design/Remedial Action deliverables and the schedule by which they must be provided to EPA after the OUI ROD Amendment for the Contingent Remedy is finalized.

74. Nothing in the foregoing Paragraphs in any way subjects EPA's selection of the Contingent Remedy to judicial review or creates any rights on the part of Waste Management or the Keystone Defendants, or their agents or representatives, to challenge EPA's remedy selection process or decision.

E. Off-Site Shipment of Waste: Owner/Operators shall, prior to any off-Site shipment of Waste Material from the Site to an out-of-state waste management facility, provide written notification to the appropriate state environmental official in

the receiving facility's state and to the EPA Project Coordinator of such shipment of Waste Material. However, this notification requirement shall not apply to any off-Site shipments when the total volume of all such shipments will not exceed ten (10) cubic yards.

(a) The Owner/Operators shall include in the written notification the following information, where available:

1. the name and location of the facility to which the Waste Material are to be shipped;
2. the type and quantity of the Waste Material to be shipped;
3. the expected schedule for the shipment of the Waste Material; and
4. the method of transportation.

The Owner/Operators shall notify the state in which the planned receiving facility is located of major changes in the shipment plan, such as a decision to ship the Waste Material to another facility within the same state, or to a facility in another state.

(b) The identity of the receiving facility and state will be determined by the Owner/Operators following the award of the contract for Remedial Action construction. The

Owner/Operators shall provide the information required by Paragraph [] as soon as practicable after the award of the contract but in no case less than seven (7) days before the Waste Material is actually shipped.

#### VIII. REMEDY REVIEW

75. Periodic Review. Owner/Operators shall conduct such studies and investigations as requested by EPA in order to permit EPA to conduct reviews of whether the Source Control Work is protective of human health and the environment, at least every five (5) years as required by Section 121(c) of CERCLA and any applicable regulations. In addition, the Owner/Operators shall evaluate the efficiency of the Source Control Work based upon periodic collection of data as set forth in the OUI ROD and the OUI ROD Amendment for Source Control, if any.

76. EPA Selection of Further Response Actions. If EPA determines, at any time, that the Source Control Work is not protective of human health and the environment, EPA may select further response actions for the Site in accordance with the requirements of CERCLA and the NCP.

77. Opportunity To Comment. Owner/Operators and, if required by Sections 113(k)(2) or 117 of CERCLA, the public will be provided with an opportunity to comment on any further

response actions proposed by EPA as a result of the review conducted pursuant to Section 121(c) of CERCLA and to submit written comments for the record during the comment period.

78. Owner/Operators' Obligation To Perform Further Response Actions. If EPA selects further response actions for the Site, the Owner/Operators shall undertake such further response actions under this Consent Decree (1) to the extent that the reopener conditions in Paragraph 169 or Paragraph 170 are satisfied; and (2) if such further response actions involve the Source Control Work or otherwise address the source of the contamination at the Site. Although the United States reserves its rights to use its enforcement authorities to seek to have the Owner/Operators and other parties perform other work, the Owner/Operators shall not be required under this Paragraph to perform such further actions if they pertain to sediment or surface water remediation, or if they are not related to the Source Control Work or the source of contamination at the Site. The Owner/Operators may invoke the procedures set forth in Section XXI (Dispute Resolution) to dispute (1) EPA's determination that the reopener conditions of Paragraph 169 or Paragraph 170 are satisfied; (2) EPA's determination that the Source Control Work is not protective of human health and the environment; (3) EPA's selection of the further response



actions; or (4) whether or not such further response actions are related to the Source Control Work or to the source of the contamination at the Site. Disputes pertaining to whether the Source Control Work is protective or to EPA's selection of further response actions shall be resolved pursuant to Section XXI (Dispute Resolution), Paragraph 155 (record review).

79. Submissions of Plans. If Owner/Operators are required to perform the further response actions pursuant to the foregoing Paragraph, they shall submit a plan for such Work to EPA for approval in accordance with the procedures set forth in Section VII (Performance of the Source Control Remedial Action by Owner/Operators) and with Section XII (EPA Approval of Plans and Other Submissions) and shall implement the plan approved by EPA in accordance with the provisions of this Consent Decree.

#### IX. QUALITY ASSURANCE, SAMPLING, AND DATA ANALYSIS

80. While conducting all sample collection and analysis activities required by this Consent Decree, the Owner/Operators shall implement quality assurance, quality control, and chain of custody procedures in accordance with "EPA Requirements for Quality Assurance Project Plans for Environmental Data Operation," (US EPA Quality Assurance Management Staff: August 1994). (EPA QA/R-5); EPA NEIC Policies

and Procedures Manual (May 1986) (EPA 330/978-001-R); National Functional Guidelines for Inorganic Data Review (EPA 540/R-94/013) and Modifications to the National Functional Guidelines for Inorganic Data Review (EPA Region III: April 1993); National Functional Guidelines for Organic Data Review (EPA 540/R-94/012) and Modifications to the National Functional Guidelines for Organic Data Review (EPA Region III: September 1994); "Region III Innovative Approaches to Data Validation", (EPA Region III: September 1994); "Innovative Approaches for Validation of Organic and Inorganic Data - Standard Operating Procedures" (EPA Region III: June 1995); "Data Quality Objectives Process for Superfund, " (EPA 540/R-93-071: September 1994); and subsequent amendments to such guidelines upon notification by EPA to Owner/Operators of such amendment. Amended guidelines shall apply only to procedures conducted after such notification. Prior to the commencement of any monitoring project under this Consent Decree, Owner/Operators shall submit to EPA for approval, after a reasonable opportunity for review and comment by the State, a Quality Assurance Project Plan ("QAPP") for the Source Control Remedial Action that is consistent with the NCP and the guidance documents cited above. If relevant to the proceeding, the Parties agree that validated sampling data generated in

accordance with the QAPP(s) shall be admissible as evidence, without objection, in any proceeding under this Decree. Owner/Operators shall ensure that EPA and State personnel and their authorized representatives are allowed access at reasonable times to all laboratories utilized by Owner/Operators in implementing this Consent Decree. In addition, Owner/Operators shall ensure that such laboratories shall analyze all samples submitted by EPA pursuant to the QAPP for quality assurance monitoring. Owner/Operators shall ensure that the laboratories they utilize for the analysis of samples taken pursuant to this Decree perform all analyses according to accepted EPA methods. Owner/Operators shall submit to EPA the selected laboratory's(ies') Quality Assurance Program Plan (QAPP) and their qualifications, which shall include, at a minimum, previous certifications, Performance Evaluation (PE) results, equipment lists and personnel resumes. Owner/Operators shall ensure that all laboratories used for analysis of samples taken pursuant to this Consent Decree participate in an EPA or EPA-equivalent QA/QC program. Owner/Operators shall ensure that all field methodologies utilized in collecting samples for subsequent analysis pursuant to this Decree will be conducted in accordance with the procedures set forth in the QAPP approved by EPA. At the

request of EPA, Owner/Operators shall conduct one or more audits of the selected laboratory(ies) to verify analytical capability and compliance with the QAPP. Auditors shall conduct lab audits during the time the laboratory(ies) is analyzing samples collected pursuant to this Consent Decree. The lab audit shall be conducted according to procedures available from the QA Branch. Audit reports shall be submitted to the EPA Project Coordinator and the State Project Coordinator within fifteen (15) days of completion of the audit. The Owner/Operators shall report serious deficiencies, including all those which adversely impact data quality, reliability or accuracy, and take action to correct such deficiencies within twenty-four (24) hours of the time the Owner/Operators knew or should have known of the deficiency.

81. Upon request, the Owner/Operators shall allow split or duplicate samples to be taken by EPA or their authorized representatives. Owner/Operators shall notify EPA and the State not less than 30 days in advance of any sample collection activity unless shorter notice is agreed to by EPA and the State. In addition, EPA and the State shall have the right to take any additional samples that they deem necessary. Upon request, EPA and the State shall allow the Owner/Operators to take split or duplicate samples of any samples it takes as

part of the Plaintiffs' oversight of the Owner/Operators' implementation of the Source Control Remedial Action.

82. Owner/Operators shall submit to EPA and the State copies of the validated results of all sampling and/or tests or other data, validated as required by the approved Field Sampling Plan, SAP, or QAPP, obtained or generated by or on behalf of Owner/Operators with respect to the implementation of this Consent Decree unless EPA and the State agree otherwise.

83. Notwithstanding any provision of this Consent Decree, the United States and the State hereby retain all of their information gathering and inspection authorities and rights, including enforcement actions related thereto, under CERCLA, RCRA, HSCA, and any other applicable statutes or regulations.

**X. ACCESS AND INSTITUTIONAL CONTROLS**

84. If the Site, or any other property where access and/or land/water use restrictions are needed to implement this Consent Decree, is owned or controlled by any of the Owner/Operators, such Owner/Operators shall:

a. provide the United States (including EPA), PADEP, Owner/Operators other than those who own or control the property, the OGDs, and the contractors and representatives of

the foregoing, access at all reasonable times to the Site and to any other property to which access and/or land/water use restrictions is required for the implementation of response actions at the Site, to the extent access to the property is controlled by the Owner/Operators, for the purposes of conducting any activity related to this Site, including, but not limited to:

- i. Monitoring the Source Control or Groundwater Remedial Action;
- ii. Verifying any data or information submitted to the United States and the State;
- iii. Conducting investigations relating to contamination at or near the Site;
- iv. Obtaining samples;
- v. Assessing the need for, planning, or implementing additional response actions at or near the Site;
- vi. Inspecting and copying records, operating logs, contracts, or other documents maintained or generated by Owner/Operators or their agents, consistent with Section XXVI;
- vii. Assessing Owner/Operators' compliance with this Consent Decree; and
- viii. Determining whether the Site or other property is being used in a manner that is prohibited or

restricted, or that may need to be prohibited or restricted, by or pursuant to this Consent Decree;

b. commencing on the date of lodging of this Consent Decree, refrain from using the Site, or such other property, in any manner that would interfere with or adversely affect the integrity or protectiveness of the remedial measures to be implemented at this Site. For purposes of this Consent Decree, the uses of the Site (to the extent such uses are the same in scope as the uses as of May 6, 1999) shall not be deemed a use that would interfere with or adversely affect the integrity or protectiveness of the remedial measures to be implemented at this Site; and

c. if EPA so requests, execute and record in the Recorder of Deeds Office of Adams County, Commonwealth of Pennsylvania, an easement, running with the land, that (i) grants a right of access for the purpose of conducting any activity related to this Site including, but not limited to, those activities listed in subparagraph a. of this Paragraph of this Consent Decree, and (ii) with regard to the Landfill, grants the right to enforce the land/water use restrictions listed in subparagraph b. of this paragraph of this Consent Decree, or other restrictions that EPA determines are necessary to implement, ensure non-interference with, or ensure the

protectiveness of the remedial measures to be performed pursuant to this Consent Decree. Such Owner/Operators shall grant the access rights and the rights to enforce the land/water use restrictions to one or more of the following persons as determined by EPA: (i) the United States, on behalf of EPA, and its representatives, (ii) the State and its representatives, (iii) the Original Generator Defendants and their representatives, (iv) Owner/Operators other than those who own or control the project; and/or (v) other appropriate grantees. Such Owner/Operators shall, within 45 days of EPA's request for such an easement, submit to EPA for review and approval with respect to such property:

i. A draft easement, in substantially the form attached hereto as Appendix B, that is enforceable under the laws of the Commonwealth of Pennsylvania, free and clear of all prior liens and encumbrances (except as approved by EPA), and acceptable under the Attorney General's Title Regulations promulgated pursuant to 40 U.S.C. § 255; and

ii. a current title commitment or report prepared in accordance with the U.S. Department of Justice Standards for the Preparation of Title Evidence in Land Acquisitions by the United States (1970) (the "Standards").

Within 15 days of EPA's approval and acceptance of the easement, such Owner/Operators shall update the title search and, if it is determined that nothing has occurred since the effective date of the commitment or report to affect the title



adversely, record the easement with the Recorder of Deeds Office of Adams County. Within 30 days of recording the easement, such Owner/Operators shall provide EPA with final title evidence acceptable under the Standards, and a certified copy of the original recorded easement showing the clerk's recording stamps.

85. To the extent that the Site or any other property to which access and/or land/water use restrictions are needed for the implementation of this Consent Decree is owned or controlled by persons other than Owner/Operators, Owner/Operators shall use best efforts to secure from such persons:

a. an agreement to provide access thereto for Owner/Operators, as well as for the United States on behalf of EPA, and the State, as well as their representatives (including contractors), for the purpose of conducting any activity related to this Consent Decree including, but not limited to, those activities listed in Paragraph 84(a) of this Consent Decree;

b. an agreement, enforceable by the Owner/Operators and the United States, to abide by the obligations and restrictions established by Paragraph 84(b) of this Consent Decree, or that are otherwise necessary to

implement, ensure non-interference with, or ensure the protectiveness of the remedial measures to be performed pursuant to this Consent Decree; and

c. if EPA requests, the execution and recordation in the Recorder of Deeds Office of Adams County, Commonwealth of Pennsylvania, of an easement, running with the land, that (i) grants a right of access for the purpose of conducting any activity related to this Consent Decree including, but not limited to, those activities listed in Paragraph 84(a) of this Consent Decree, and (ii) with regard to the Landfill, grants the right to enforce the land/water use restrictions listed in Paragraph 84(b) of this Consent Decree, or other restrictions that EPA determines are necessary to implement, ensure non-interference with, or ensure the protectiveness of the remedial measures to be performed pursuant to this Consent Decree. The access rights and/or rights to enforce land/water use restrictions shall be granted to one or more of the following persons as determined by EPA: (i) the United States, on behalf of EPA, and its representatives, (ii) the State and its representatives, (iii) the Original Generator Defendants and their representatives, (iv) the Owner/Operators,

and/or (v) other appropriate grantees. Within 45 days of EPA's request for such easement, Owner/Operators shall submit to EPA for review and approval with respect to such property:

i. A draft easement, in substantially the form attached hereto as Appendix B, that is enforceable under the laws of the Commonwealth of Pennsylvania, free and clear of all prior liens and encumbrances (except as approved by EPA), and acceptable under the Attorney General's Title Regulations promulgated pursuant to 40 U.S.C. § 255; and

ii. a current title commitment or report prepared in accordance with the U.S. Department of Justice Standards for the Preparation of Title Evidence in Land Acquisitions by the United States (1970) (the "Standards").

Within 15 days of EPA's approval and acceptance of the easement, Owner/Operators shall update the title search and, if it is determined that nothing has occurred since the effective date of the commitment or report to affect the title adversely, the easement shall be recorded with the Recorder of Deeds Office of Adams County. Within 30 days of the recording of the easement, Owner/Operators shall provide EPA with final title evidence acceptable under the Standards, and a certified copy of the original recorded easement showing the clerk's recording stamps. For purposes of this Paragraph, "best efforts" includes the payment of reasonable sums of money in consideration of access, access easements, land/water use restrictions, and/or

restrictive easements. If any access or land/water use restriction agreements required by subparagraphs a. or b. of this Paragraph of this Consent Decree are not obtained within 45 days of the date of entry of this Consent Decree, or any access easements or restrictive easements required by subparagraph c. of this Paragraph of this Consent Decree are not submitted to EPA in draft form within 45 days of the date of EPA's request for such easement, Owner/Operators shall promptly notify the United States in writing, and shall include in that notification a summary of the steps that Owner/Operators have taken to attempt to comply with this Paragraph of this Consent Decree. The United States may, as it deems appropriate, assist Owner/Operators in obtaining access or land/water use restrictions, either in the form of contractual agreements or in the form of easements running with the land. Owner/Operators shall reimburse the United States in accordance with the procedures in Section XVII (Reimbursement of Response Costs), for all costs incurred, direct or indirect, by the United States in obtaining such access and/or land/water use restrictions including, but not limited to, the cost of attorney time and the amount of monetary consideration paid or just compensation.

86. If EPA determines that land/water use

restrictions in the form of state or local laws, regulations, ordinances or other governmental controls are needed to implement the remedy selected in the OUI ROD, as amended, ensure the integrity and protectiveness thereof, or ensure non-interference therewith, Owner/Operators (or such Related Keystone Party owning or controlling such property) shall cooperate with EPA's and the State's efforts to secure such governmental controls. Notwithstanding any provision of this Consent Decree, the United States and the State retain all of their access authorities and rights, including enforcement authorities related thereto, under CERCLA, RCRA, and any other applicable statute or regulations.

#### XI. REPORTING REQUIREMENTS

87. In addition to any other requirement of this Consent Decree, Owner/Operators shall submit to EPA and the State five (5) copies each of written bi-monthly (i.e., every other month) progress reports that: (a) describe the actions which have been taken toward achieving compliance with this Consent Decree during the previous period; (b) include a summary of all results of sampling and tests and all other data received or generated by Owner/Operators or their contractors or agents in the previous period; (c) identify all Work plans, plans, and other deliverables required by this Consent Decree

completed and submitted during the previous period; (d) describe all actions, including, but not limited to, data collection and implementation of Work plans, which are scheduled for the next period; and provide other information relating to the progress of construction, including, but not limited to, critical path diagrams, Gantt charts, and Pert charts; (e) include information regarding percentage of completion, unresolved delays encountered or anticipated that may affect the future schedule for implementation of the Source Control Remedial Action, and a description of efforts made to mitigate those delays or anticipated delays; (f) include any modifications to the Work plans or other schedules that Owner/Operators have proposed to EPA or that have been approved by EPA; and (g) describe all activities undertaken in support of the Community Relations Plan during the previous month and those to be undertaken in the next period. Owner/Operators shall submit these progress reports to EPA by the tenth day of each alternate month following the entry of this Consent Decree until EPA notifies the Owner/Operators pursuant to Section XV (Certifications of Completion). If requested by EPA or the State, the Owner/Operators shall also provide briefings for EPA and the State to discuss the progress of the Source Control Remedial Action.

88. The Owner/Operators shall notify EPA of any change in the schedule described in the progress reports for the performance of any activity, including, but not limited to, implementation of Work plans, no later than seven (7) days prior to the performance of the activity. Notwithstanding the foregoing, the Owner/Operators shall notify EPA of any change in the schedule described in the progress reports for the performance of data collection no later than thirty (30) days prior to the performance of such activity.

89. Upon the occurrence of any event during performance of the Source Control Remedial Action that Owner/Operators are required to report pursuant to Section 103 of CERCLA or Section 304 of the Emergency Planning and Community Right-to-Know Act (EPCRA), Owner/Operators shall orally notify the EPA Project Coordinator or the Alternate EPA Project Coordinator (in the event of the unavailability of the EPA Project Coordinator), or, in the event that neither the EPA Project Coordinator or Alternate EPA Project Coordinator is available, the EPA Region III Hotline at (215) 566-3255. These reporting requirements are in addition to the reporting required by CERCLA § 103 or EPCRA § 304.

90. Within twenty (20) days of the onset of such an event, Owner/Operators shall furnish to the United States a

written report, signed by the Owner/Operators' Project Coordinator setting forth the events which occurred and the measures taken, and to be taken, in response thereto. Within thirty (30) days of the conclusion of such an event, Owner/Operators shall submit a report setting forth all actions taken in response thereto.

91. Owner/Operators shall submit to EPA seven (7) copies of all plans, reports, and data required by the Source Control Remedial Design, the Source Control Remedial Action Work Plan, or any other approved plans in accordance with the schedules set forth in such plans. EPA shall place two copies of such plans, reports and data in each of the two document repositories. Owner/Operators shall simultaneously mail or otherwise provide two copies of such plans, reports and data to PADEP.

92. All reports and other documents submitted by Owner/Operators to EPA (other than the progress reports referred to above) which purport to document Owner/Operators' compliance with the terms of this Consent Decree shall be signed by the Owner/Operators' Duly Authorized Representative.

#### XII. EPA APPROVAL OF PLANS AND OTHER SUBMISSIONS

93. After review of any plan, report or other item which is required to be submitted for approval pursuant to this



Consent Decree, EPA, after reasonable opportunity for review and comment by the State, shall: (a) approve, in whole or in part, the submission; (b) approve the submission upon specified conditions; (c) modify the submission to cure the deficiencies; (d) disapprove, in whole or in part, the submission, directing that the Owner/Operators modify the submission; or (e) any combination of the above. However, EPA shall not modify a submission without first providing Owner/Operators at least one notice of deficiency and an opportunity to cure within twenty-one (21) days, or such other time as specified by EPA in the notice, except where to do so would cause serious disruption to the Source Control Work, or where previous submission(s) have been disapproved due to material defects and the deficiencies in the submission under consideration indicate to EPA a bad faith lack of effort to submit an acceptable deliverable.

94. In the event of approval, approval upon conditions, or modification by EPA, pursuant to the foregoing Paragraph, subparts (a), (b), or (c), Owner/Operators shall proceed to take any action required by the plan, report, or other item, as approved or modified by EPA subject only to their right to invoke the Dispute Resolution procedures set forth in Section XXI (Dispute Resolution) with respect to the modifications or conditions made by EPA. In the event that EPA

modifies the submission to cure the deficiencies pursuant to the foregoing Paragraph, and the submission has a material defect, EPA retains its right to seek stipulated penalties, as provided in Section XXII (Stipulated Penalties).

95. Upon receipt of a notice of disapproval pursuant to Paragraph 93(d), Owner/Operators shall, within fourteen (14) days, correct the deficiencies and resubmit the plan, report, or other item for approval. Any stipulated penalties applicable to the submission, as provided in Section XXII, (Stipulated Penalties) shall accrue during the fourteen (14) day period, but shall not be payable unless the resubmission is disapproved or modified due to a material defect as provided in Paragraphs 93(c) and (d).

96. Notwithstanding the receipt of a notice of disapproval pursuant to Paragraph 93(d), Owner/Operators shall proceed, at the direction of EPA, to take any action required by any non-deficient portion of the submission. Implementation of any non-deficient portion of a submission shall not relieve Owner/Operators of any liability for stipulated penalties under Section XXII (Stipulated Penalties).

97. In the event that a resubmitted plan, report or other item, or portion thereof, is disapproved by EPA, EPA may again require the Owner/Operators to correct the deficiencies,

in accordance with the preceding Paragraphs. EPA also retains the right to modify or develop the plan, report or other item. Owner/Operators shall implement any such plan, report, or item as modified or developed by EPA, subject only to their right to invoke the procedures set forth in Section XXI (Dispute Resolution).

98. If upon resubmission, a plan, report, or item is disapproved or modified by EPA due to a material defect, Owner/Operators shall be deemed to have failed to submit such plan, report, or item timely and adequately unless the Owner/Operators invoke the dispute resolution procedures set forth in Section XXI (Dispute Resolution) and EPA's action is overturned pursuant to that Section. The provisions of Section XXI (Dispute Resolution) and Section XXII (Stipulated Penalties) shall govern the implementation of the Work and accrual and payment of any stipulated penalties during Dispute Resolution. If EPA's disapproval or modification is upheld, stipulated penalties shall accrue for such violations from the date on which the original submission was originally required, as provided in Section XXII (Stipulated Penalties).

99. All plans, reports, and other items required to be submitted to EPA under this Consent Decree shall, upon approval or modification by EPA, be enforceable under this

Consent Decree. In the event EPA approves or modifies a portion of a plan, report, or other item required to be submitted to EPA under this Consent Decree, the approved or modified portion shall be enforceable under this Consent Decree.

### XIII. PROJECT COORDINATORS

100. The EPA Project Coordinator and Alternate Project Coordinator for this Site are:

#### EPA Project Coordinator:

Kelley Chase [3HS21]  
U.S. Environmental Protection Agency  
1650 Arch Street  
Philadelphia, PA 19103  
(215) 814-3124 (phone)  
(215) 814-3002 (telefax)

#### EPA Alternate Project Coordinator:

Ruth Scharr [3HS22]  
U.S. Environmental Protection Agency  
1650 Arch Street  
Philadelphia, PA 19103  
(215) 814-3191 (phone)  
(215) 814-3002 (telefax)

Owner/Operators have designated Stephen T. Joyce as their Project Coordinator. If a Project Coordinator initially designated is changed, Owner/Operators shall utilize the procedures set forth in Section VII to advise EPA and to obtain acceptance or disapproval of EPA. The Owner/Operators' Project Coordinator shall have the technical expertise

sufficient to adequately oversee all aspects of the Source Control Remedial Action. The Owner/Operators' Project Coordinator shall not be an attorney for any of the Owner/Operators in this matter. The Owner/Operators' Project Coordinator may assign other representatives, including other contractors, to serve as a Site representative for oversight of performance of daily operations during remedial activities.

101. Plaintiffs may designate other representatives, including, but not limited to, EPA and state employees, and federal and state contractors and consultants, to observe and monitor the progress of any activity undertaken pursuant to this Consent Decree. EPA's Project Coordinator and Alternate Project Coordinator shall have the authority lawfully vested in a Remedial Project Manager (RPM) and an On-Scene Coordinator (OSC) by the National Contingency Plan, 40 C.F.R. Part 300. In addition, EPA's Project Coordinator and Alternate Project Coordinator shall have authority, consistent with the National Contingency Plan, to halt any Source Control Remedial Action required by this Consent Decree and to take any necessary response action when s/he determines that conditions at the Site constitute an emergency situation or may present an immediate threat to public health or welfare or the environment due to release or threatened release of a hazardous substance

under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

102. EPA's Project Coordinator and the Owner/Operators' Project Coordinator will confer, at a minimum, on a monthly basis.

**XIV. ASSURANCE OF ABILITY TO COMPLETE THE  
SOURCE CONTROL WORK**

103. One or more of the Owner/Operators have for the current year demonstrated, and shall continue to demonstrate annually, their ability to complete the Source Control Work and to pay all claims that arise from the performance of the Source Control Work. Following the entry of this Consent Decree, and each year thereafter until EPA issues a Certification of Completion of the Remedial Action pursuant to Section XV of this Consent Decree, one or more of the Owner/Operators shall submit to the United States and the Commonwealth audited financial statements within ninety (90) of the close of its respective fiscal years. The financial information to be submitted shall at a minimum demonstrate that one or more of the Owner/Operators have a net worth of not less than \$1,000,000,000 and a debt to equity ratio of not more than 4.0. The company will certify that ninety percent (90%) of the assets are located in the United States.

104. In the event that one or more of the

Owner/Operators are unable to make a demonstration as required in the foregoing Paragraph within ninety (90) days of the close of their respective financial years, and subject to the provisions in Section V, Paragraph 32.C, one or more of the Owner/Operators shall establish and maintain financial security in the amount of \$ 7.5 million in one or more of the following forms:

(a) A surety bond guaranteeing performance of the Source Control Work;

(b) One or more irrevocable letters of credit equaling the total estimated cost of the Source Control Work;

(c) A trust fund;

(d) A guarantee to perform the Source Control Work by a third party that fulfills the requirements of the foregoing Paragraph.

105. If Owner/Operators can show that the estimated cost to complete the remaining Source Control Work has diminished below the amount set forth in Paragraph 104 above after entry of this Consent Decree, Owner/Operators may submit a proposal for such reduction to EPA in accordance with the requirements of this Section, and may reduce the amount of the security upon approval by EPA. In the event of a dispute, Owner/Operators may reduce the amount of the security in

accordance with the final administrative or judicial decision resolving the dispute.

106. Owner/Operators may change the form of financial assurance provided under this Section at any time, upon notice to and approval by EPA, provided that the new form of assurance meets the requirements of this Section. In the event of a dispute, Owner/Operators may change the form of the financial assurance only in accordance with the final administrative or judicial decision resolving the dispute.

#### **XV. CERTIFICATIONS OF COMPLETION**

107. Completion of the Source Control Remedial Action. Within ninety (90) days after Owner/Operators conclude that the Source Control Remedial Action has been completed and the Source Control Performance Standards have been attained, Owner/Operators shall schedule and conduct a pre-certification inspection to be attended by Owner/Operators and the EPA. If, after the pre-certification inspection, the Owner/Operators still believe that the Source Control Remedial Action has been completed and the Source Control Performance Standards have been attained, they shall submit a written report requesting certification to EPA for approval, with a copy to the State, pursuant to Section XII (EPA Approval of Plans and Other Submissions) within thirty (30) days of the inspection. In the



report, a registered professional engineer and the Owner/Operators' Project Coordinator shall state that the Source Control Remedial Action has been completed in full satisfaction of the requirements of this Consent Decree. The written report shall include as-built drawings signed and stamped by a professional engineer. The report shall contain the following statement, signed by a Duly Authorized Representative of the Owner/Operators or the Owner/Operators' Project Coordinator:

"To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

If, after completion of the pre-certification inspection and receipt and review of the written report, EPA, after reasonable opportunity for review and comment by the State, determines that the Source Control Remedial Action or any portion thereof has not been completed in accordance with this Consent Decree or that the Source Control Performance Standards have not been achieved, EPA will notify Owner/Operators in writing of the activities that must be undertaken by Owner/Operators pursuant to this Consent Decree to complete the Source Control Remedial Action and achieve the Source Control Performance Standards.

EPA may only require Owner/Operators to perform such activities pursuant to this Paragraph to the extent that such activities are consistent with the scope of the remedy selected in the Source Control Remedial Action as that term is defined in Paragraphs 55 and 69. If such activities are consistent with the scope of the remedy selected in the Source Control Remedial Action, as that term is defined in Paragraphs 55 and 69, EPA will set forth in the notice a schedule for performance of such activities consistent with the Consent Decree or require the Owner/Operators to submit a schedule to EPA for approval pursuant to Section XII (EPA Approval of Plans and Other Submissions). Owner/Operators shall perform all activities described in the notice in accordance with the specifications and schedules established pursuant to this Paragraph, subject to their right to invoke the dispute resolution procedures set forth in Section XXI (Dispute Resolution).

108. If EPA concludes, based on the initial or any subsequent report requesting Certification of Completion of the Source Control Remedial Action and after a reasonable opportunity for review and comment by the State, that the Source Control Remedial Action has been performed in accordance with this Consent Decree and that the Source Control Performance Standards have been achieved, EPA shall so certify

in writing to Owner/Operators.

109. Completion of the Source Control Work.

Within ninety (90) days after Owner/Operators conclude that all phases of the Source Control Work, including Source Control Operation and Maintenance, have been fully performed, Owner/Operators shall schedule and conduct a pre-certification inspection to be attended by Owner/Operators and the EPA. If, after the pre-certification inspection, the Owner/Operators still believe that the Source Control Work has been fully performed, they shall submit a written report requesting certification to EPA for approval, with a copy to the State, pursuant to Section XII (EPA Approval of Plans and Other Submissions) within thirty (30) days of the inspection. In the report, a registered professional engineer and the Owner/Operators' Project Coordinator shall state that the Source Control Work has been completed in full satisfaction of the requirements of this Consent Decree. The written report shall include as-built drawings signed and stamped by a professional engineer. The report shall contain the following statement, signed by a Duly Authorized Representative of the Owner/Operators or the Owner/Operators' Project Coordinator:

"To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate and complete. I am aware that there

are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

If, after completion of the pre-certification inspection and receipt and review of the written report, EPA, after reasonable opportunity for review and comment by the State, determines that the Source Control Work or any portion thereof has not been completed in accordance with this Consent Decree, EPA will notify Owner/Operators in writing of the activities that must be undertaken by Owner/Operators pursuant to this Consent Decree to complete the Source Control Work. EPA may only require Owner/Operators to perform such activities pursuant to this Paragraph to the extent that such activities are consistent with the scope of the remedy selected in the Source Control Work as that term is defined in Paragraphs 55 and 69. If such activities are consistent with the scope of the remedy selected in the Source Control Work, as that term is defined in Paragraphs 55 and 69, EPA will set forth in the notice a schedule for performance of such activities consistent with the Consent Decree or require the Owner/Operators to submit a schedule to EPA for approval pursuant to Section XII (EPA Approval of Plans and Other Submissions). Owner/Operators shall perform all activities described in the notice in accordance with the specifications and schedules established

pursuant to this Paragraph, subject to their right to invoke the dispute resolution procedures set forth in Section XXI (Dispute Resolution).

110. If EPA concludes, based on the initial or any subsequent report requesting Certification of Completion of the Source Control Work and after a reasonable opportunity for review and comment by the State, that the Source Control Work has been performed in accordance with this Consent Decree and that the Source Control Performance Standards have been achieved, EPA shall so certify in writing to Owner/Operators.

111. Completion of the Final Remedial Action.  
When the Groundwater Remedial Action is completed and any related Groundwater Performance Standards have been met, it is contemplated that EPA or any private party performing such work, as the case may be, will schedule and conduct an inspection, prepare a final report, and provide certification by a professional engineer, Project Manager or Remedial Project Manager that the Groundwater Remedial Action has been completed.

112. When EPA has issued a Certificate of Completion for both the Source Control Work and the Groundwater Remedial Action, and ascertained that all Performance Standards at the Site have been met, EPA shall issue a Certificate of

Completion of the Final Remedial Action. This certification shall be issued as part of, or concurrently with, the latter of the Certificate of Completion of the Source Control Work or the Certificate of Completion of the Groundwater Remedial Action, and shall constitute the Certification of Completion of the Final Remedial Action for purposes of this Consent Decree, including but not limited to, Section XXIII (Covenants Not to Sue by the United States and the State). Certification of Completion of the Final Remedial Action shall not affect Owner/Operators' obligations which survive under this Consent Decree.

113. The State will provide its own certification of completion of the remedial action pursuant to HSCA for purposes of Section XXIII (Covenants Not to Sue by United States and the State), Paragraph 171, that contains the State's covenant not to sue when it determines that the requirements of HSCA have been met.

#### **XVI. EMERGENCY RESPONSE**

114. In the event of an action or occurrence during the performance of the Source Control Remedial Action which causes or threatens a release of Waste Materials from the Site that constitutes an emergency situation or may present an immediate threat to public health or welfare or the

environment, Owner/Operators shall, subject to the following Paragraph, immediately take all appropriate action to prevent, abate, or minimize such release or threat of release, and shall immediately notify the EPA's Project Coordinator, or, if the Project Coordinator is unavailable, EPA's Alternate Project Coordinator. If neither of these persons is available, the Owner/Operators shall notify the EPA Region III Hotline at (215) 814-3255. Owner/Operators shall take such actions in consultation with EPA's Project Coordinator or other available authorized EPA officer and in accordance with all applicable provisions of the health and safety plans, the contingency plans, and any other applicable plans or documents developed pursuant to this Consent Decree. In the event that the Owner/Operators fail to take appropriate response action to address the emergency as required by this Section, and EPA or the State takes such action instead, Owner/Operators shall reimburse EPA, or the State as the case may be, all costs of the response action not inconsistent with the NCP pursuant to Section XVII (Reimbursement of Response Costs and Natural Resource Damages and Payment of Penalties).

115. Nothing in the preceding Paragraph or in this Consent Decree shall be deemed to limit any authority of the United States or the State to (a) take all appropriate

action to protect human health and the environment or to prevent, abate, respond to, or minimize an actual or threatened release of Waste Material on, at, or from the Site, or (b) direct or order such action, or seek an order from the Court, to protect human health and the environment or to prevent, abate, respond to, or minimize an actual or threatened release of Waste Material on, at, or from the Site, subject to Section XXIII (Covenants Not to Sue by United States and the State).

**XVII. REIMBURSEMENT OF RESPONSE COSTS AND  
NATURAL RESOURCE DAMAGES AND PAYMENT OF PENALTIES**

116. Within thirty (30) days of entry of this Consent Decree, Owner/Operators shall pay ONE HUNDRED TWENTY-FIVE THOUSAND DOLLARS (\$125,000) to the United States for Natural Resource Damages, in the form of a certified check made payable to "U.S. Department of the Interior" and referencing Account Number 14X5198 and the Keystone Sanitation Landfill Superfund Site. The Owner/Operators shall forward their payments by certified check by certified mail, return receipt requested, to:

Chief, Division of Finance  
U.S. Fish and Wildlife Service  
4401 North Fairfax Drive  
Arlington, VA 22203

with a copy to:

Mark Barash  
Office of the Regional Solicitor



United States Department of Interior  
One Gateway Center  
Suite 612  
Newton Corner, MA 02158-2868

and shall reference that the payment is for Natural Resource Damages for resources under the trusteeship of DOI with respect to the Keystone Sanitation Landfill Superfund Site. A copy of the check paid pursuant to this subparagraph, and any accompanying transmittal letter, shall be sent to the United States as provided in Section XXVIII (Notices and Submissions).

117. Within thirty (30) days of entry of the Consent Decree, Waste Management shall pay to the EPA Hazardous Substance Superfund Two Hundred and Fifty Thousand Dollars (\$250,000) in payment of penalties to resolve the United States' claims under Section 106(b)(1) and 107(c)(3) that Waste Management failed to comply with the Waste Management UAO. Payment shall be made by FedWire Electronic Funds transfer ("EFT" or wire transfer) to the U.S. Department of Justice account in accordance with current electronic funds transfer procedures, referencing the Keystone Sanitation Landfill Superfund Site and DOJ case number 90-11-2-656A. Payment shall be made in accordance with instructions provided to the Settling Defendants by the Financial Litigation Unit of the United States Attorney's Office for the Middle District of Pennsylvania following lodging of the Consent Decree. Any

payments received by the Department of Justice after 4:00 P.M. (Eastern Time) will be credited on the next business day. Waste Management shall send notice that such payment has been made to the United States as specified in Section XXVIII (Notice and Submissions).

118. Within thirty (30) days of entry of the Consent Decree, the State shall credit an amount equal to \$38,867.00 against the Keystone Landfill closure bond as reimbursement of State Past Response Costs. Payments for State Future Response Costs shall be made in the form of a certified check or checks made payable to the "Hazardous Sites Cleanup Fund" in reimbursement of State Future Response Costs. The check(s) should reference the Keystone Sanitation Landfill Site and be mailed to the attention of Financial Officer for Bureau of Land Recycling and Waste Management, Pennsylvania Department of Environmental Protection, P.O. Box 8471, Harrisburg, PA 17105-8471.

119. Within thirty (30) days of entry of this Consent Decree, the State shall credit an amount equal to \$30,000 against the Keystone Landfill closure bond for State Natural Resource Damages.

120. Any funds remaining in the Keystone Landfill closure bond after crediting the State Past Response

Costs and State Natural Resource Damages shall be credited as part of the settlement of the State's claims against the Owner/Operators at the AdSCO Landfill.

121. Owner/Operators shall reimburse the EPA Hazardous Substance Superfund for all Federal Future Response Costs as defined in this Consent Decree that are incurred in a manner not inconsistent with the National Contingency Plan. The United States will send Owner/Operators a bill requiring reimbursement for Federal Future Response Costs which bill shall include a cost summary, setting forth direct and indirect costs incurred by EPA, DOJ, and their contractors. Owner/Operators shall have the right to request, within ten (10) days of receipt of such bill, EPA's supporting cost documentation for the Federal Future Response Costs itemized in the bill. The Owner/Operators shall make all payments within thirty (30) days of Owner/Operators' receipt of any bill requiring payment or of the requested supporting cost documentation, whichever is later, except as otherwise provided in Paragraph 123. The Owner/Operators shall make all payments required by this Paragraph in the form of a certified or cashier's checks made payable to "EPA Hazardous Substance Superfund" and referencing the EPA Region and Site/Spill ID #03L9, the DOJ case number 90-11-2-656A, and the name and

address of the party making payment. The Owner/Operators shall send the check(s) to United States Environmental Protection Agency, Region III, Attention: Superfund Accounting, P.O. Box 360515, Pittsburgh, PA 15251-6515, and shall send copies of the check(s) to the United States as specified in Section XXVIII (Notices and Submissions) and to the Docket Clerk (3RC00), United States Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, PA 19103-2029.

122. Owner/Operators shall reimburse the State for all State Future Response Costs as defined in this Decree that are incurred not inconsistent with the National Contingency Plan. The State will send Owner/Operators a bill requiring reimbursement for State Future Response Costs which bill shall include a cost summary, setting forth direct and indirect costs incurred by the State and its contractors. Owner/Operators may request such bills on an annual basis. The Owner/Operators shall have the right to request, within ten (10) days of receipt of such bill, PADEP's supporting cost documentation for the State Future Response Costs itemized in the bill. Owner/Operators shall make all payments within thirty (30) days of Owner/Operators' receipt of any bill requiring payment, except as otherwise provided in Paragraph 123. The Owner/Operators shall make all payments required by this

Paragraph in the form of a certified or cashier's checks made payable to the "Hazardous Sites Cleanup Fund" and referencing the Keystone Sanitation Landfill Superfund Site and the name and address of the party making payment. The Owner/Operators shall send the check(s) to Financial Officer for Bureau of Land Recycling and Waste Management, Pennsylvania Department of Environmental Protection, P.O. Box 8471, Harrisburg, PA 17105-8471.

123. Owner/Operators may contest payment of any State or Federal Future Response Costs under Paragraphs 121 and 122 if they believe that (1) the costs involved do not fall within the categories of Federal Future Response Costs or State Future Response Costs defined in this Consent Decree; or (2) the United States, or the State, as the case may be, has made an accounting error; or (3) a cost item that is included represents costs that are incurred in a manner inconsistent with the NCP. The foregoing objections shall be made in writing within thirty (30) days of receipt of the bill or the supporting cost documentation, whichever is later, and must be sent to the United States (if the United States' accounting is being disputed) or the State (if the State's accounting is being disputed) pursuant to Section XXVIII (Notices and Submissions). Any such objection shall specifically identify

the contested Future Response Costs and the basis for objection. In the event of an objection, the Owner/Operators shall within the thirty (30) day period pay all uncontested Future Response Costs to the United States or the State, as appropriate, in the manner described in Paragraphs 121 and 122. Simultaneously, the Owner/Operators shall establish an interest-bearing escrow account in a federally-insured, duly chartered, bank in the State of Pennsylvania and remit to that escrow account funds equivalent to the amount of the contested Future Response Costs. The Owner/Operators shall send to the United States or the State, as provided in Section XXVIII (Notices and Submissions), a copy of the transmittal letter and check paying the uncontested Future Response Costs, and a copy of the correspondence that establishes and funds the escrow account, including, but not limited to, information containing the identity of the bank and bank account under which the escrow account is established as well as a bank statement showing the initial balance of the escrow account. Simultaneously with establishment of the escrow account, the Owner/Operators shall initiate the Dispute Resolution procedures in Section XXI (Dispute Resolution). If the United States or the State prevails in the dispute, within five (5) days of the resolution of the dispute, the Owner/Operators

shall pay the sums due (with accrued interest) to the United States or the State, if State costs are disputed, in the manner described in Paragraphs 121 or 122. If the Owner/Operators prevail concerning any aspect of the contested costs, the Owner/Operators shall pay that portion of the costs (plus associated accrued interest) for which they did not prevail to the United States, or the State, if State costs are disputed, in the manner described in Paragraphs 121 or 122; Owner/Operators shall be disbursed any balance of the escrow account. The dispute resolution procedures set forth in this Paragraph in conjunction with the procedures set forth in Section XXI (Dispute Resolution) shall be the exclusive mechanisms for resolving disputes regarding the Owner/Operators' obligation to reimburse the United States or the State for its Future Response Costs.

124. In the event that the payments required by Paragraphs 116 and 117, are not made within thirty (30) days of the effective date of this Consent Decree or the payments required by Paragraphs 121 or 122 are not made within thirty (30) days of the Owner/Operators' receipt of the bill or the supporting cost documentation, whichever is later, Owner/Operators shall pay Interest on the unpaid balance. The Interest on Future Response Costs shall begin to accrue on the

date of the bill or transmittal of the supporting cost documentation, whichever is later. The Interest shall accrue through the date of the Owner/Operators' payment. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to Plaintiffs by virtue of Owner/Operators' failure to make timely payments under this Section. The Owner/Operators shall make all payments required by this Paragraph in the manner described in Paragraphs 116, 117, 121, and 122.

**XVIII. PAYMENTS, COST-SHARING, AND REIMBURSEMENTS**

125. Cost of Performing ELGE Remedy:

Owner/Operators shall bear the full cost of implementation of the ELGE Remedy and the ELGE Remedy Operation and Maintenance, as defined in this Consent Decree, if it is selected by EPA.

126. "Floor": Regardless of the Source Control Work performed by Owner/Operators at the Site, if they incur less than \$4.25 million in Qualified Costs (as defined in Paragraph 129) in year 2000 dollars (the "Floor") at the Site, they shall make a payment pursuant to the procedures set forth in Section XVII, Paragraph 117 (Reimbursement of Response Costs to the United States) for the difference between the total amount of Qualified Costs and \$4.25 million. That payment shall be made at the time of Certification of Completion of the Source



Control Work.

127.           "Ceiling" and Cost-Sharing for Other  
Source Control Remedies: EPA will provide reimbursement and cost-sharing to the Owner/Operators for Qualified Costs in excess of \$5.75 million in year 2000 dollars incurred in implementing the Landfill Cap Remedy or the Contingent Remedy ("Ceiling"), subject to the availability of funds, as set forth in this Section.

128.           In the event that EPA determines, as set forth in Section VI, that the ELGE Source Control Remedy has failed, and directs the Owner/Operators in writing to proceed with the Contingent Remedy, any Qualified Costs incurred by the Owner/Operators in performing the ELGE Remedy prior to such written determination by EPA will be counted toward the \$5.75 million Ceiling; provided, however, that in the event the Owner/Operators spent more than \$5.75 million in Qualified Costs on the ELGE Remedy before EPA's written determination under Section VII that the ELGE Remedy or ELGE Remedy Operation and Maintenance has failed or will fail, those costs in excess of \$5.75 million will not be counted towards, or the subject of, the cost-sharing set forth in the following paragraphs.

129.           Qualified Costs: Qualified Costs shall consist only of the following costs:

(a) for response costs incurred by the Owner/Operators at the Site prior to lodging of this consent decree, \$400,000 shall be deemed to be Qualified Costs. No other pre-lodging response costs shall be counted as Qualified Costs;

(b) for response costs incurred at the Site by the Owner/Operators after the date of lodging of this consent decree, Qualified Costs shall be limited to necessary and actual direct costs expended not inconsistent with the NCP for implementation of the Source Control Work selected or approved by EPA. Qualified Costs shall exclude attorneys fees or costs, costs related to litigation, settlement, or responsible parties search activities, and other internal or transaction costs.

130. Certification of Qualified Costs: For purposes of determining whether Owner/Operators have incurred less than the Floor of \$4.25 million, at the time that the Owner/Operators submit a written report to EPA for Certification of Completion of the Source Control Work pursuant to Section XV, Paragraphs 109 and 110, they shall submit certification of the Qualified Costs expended in performing the Source Control Work through the date of the report. For purposes of determining whether the \$5.75 million Ceiling has been reached, so that EPA will initiate its cost-sharing,

Owner/Operators may certify their Qualified Costs (1) if EPA selects the Landfill Cap Remedy, at the time the Owner/Operators petition for Certification of Completion of the Landfill Cap Remedy (exclusive of Operation and Maintenance); or (2) if EPA selects the ELGE Remedy but subsequently determines that it has failed or will fail, at the time EPA selects a Contingent Remedy. The Owner/Operators may certify any additional Qualified Costs after the Ceiling has been reached (1) in increments of no less than \$100,000; and (2) no more frequently than annually thereafter.

131. The Floor of \$4.25 million and the Ceiling of \$5.75 million shall be calculated in year 2000 constant dollars. Certification of the total amount of Qualified Costs incurred by the Owner/Operators shall be adjusted to discount the value of future dollars to year 2000 constant dollars, using a discount rate of 5 percent per annum.

132. Reimbursement from Site Special Account:  
Pursuant to the Consent Decree with the third and fourth party defendants entered by the Court on September 10, 1999, funds for Site remediation and the EPA payments under this Section will be made available in a Special Account for the Site ("Site Special Account"). When the \$5.75 million "Ceiling" has been reached, pursuant to the terms of Paragraphs 127 and 128, the

United States intends to make initial reimbursement from the portion of the Site Special Account not previously reserved under prior consent decrees ("unreserved portion"), subject to the availability of funds. The United States represents that the only previously reserved funds from the Site Special Account are those funds identified in the Original Generator Defendants' Consent Decree.

133: After a Site Special Account is created, the United States agrees to reimburse the Owner/Operators from the unreserved portion of that Account at a rate of 100% for the first \$1 million in Qualified Costs in excess of the Ceiling incurred by the Owner/Operators in performing the Landfill Cap Remedy and/or the Landfill Cap Remedy Operation and Maintenance, or the Contingent Remedy and/or the Contingent Remedy Operation and Maintenance.

134. Thereafter, the United States agrees to reimburse the Owner/Operators from the unreserved portion of the Site Special Account at a rate of  $\frac{2}{3}$  to  $\frac{1}{3}$  (i.e.,  $\frac{2}{3}$  of the Qualified Costs are to be paid by the United States) incurred in performing the Landfill Cap Remedy and Landfill Cap Remedy Operation and Maintenance, or the Contingent Remedy and Contingent Remedy Operation and Maintenance, until the Site Special Account is exhausted.

135. Reimbursement for Risk-Sharing for

Innovative Technology: EPA has accepted the Keystone Site into the innovative technology risk-sharing program. If EPA selects the ELGE Remedy at the Site, but subsequently determines that the ELGE Remedy and/or the ELGE Remedy Operation and Maintenance will not meet and maintain the ELGE Remedy Performance Standards and requires the Owner/Operators to implement the Contingent Remedy, then EPA will endeavor to provide the Owner/Operators with additional funding from EPA after the Site Special Account is exhausted. EPA will endeavor to provide such funding, as set forth in Paragraph 136 below, up to a limit of the sum of \$ 1,750,000 (\$1.75 Million). EPA will reimburse fifty percent (50%) of the Owner/Operators' Qualified Costs incurred under the innovative technology risk-sharing program.

136. The EPA funds referred to in the foregoing Paragraphs may be provided, at EPA's election, in the form of preauthorized mixed funding pursuant to Sections 111(a)(2), 112, and 122(b)(1) of CERCLA, and 40 C.F.R. 307, mixed work, grants, or other mechanisms.

137. If EPA determines that the ELGE Remedy has failed to meet or maintain ELGE Remedy Performance Standards, Owner/Operators shall account for all Qualified Costs incurred

in connection with ELGE that are to be reimbursed pursuant to the foregoing Paragraph and shall document such costs as provided in 40 C.F.R. § 307 and any relevant guidance provided by EPA on cost accounting. The ELGE costs shall be separated from costs incurred for the non-innovative components of the ELGE Remedy that are not reimbursable.

138. Owner/Operators shall document their Qualified Costs expended on any Contingent Remedy in a manner consistent with any cost accounting requirements needed to obtain the type of funding selected by EPA. Provision of these funds also is subject to Owner/Operators timely submitting required applications and supporting documentation and complying with any other requirements of the application processes pertaining to such funding or commitments.

139. If EPA determines, based on its review of the data or other sources of technical information, that the ELGE Remedy will not meet or maintain ELGE Remedy Performance Standards at the Site, EPA shall provide written notification to the Owner/Operators of that determination. Any costs subsequently incurred by the Owner/Operators in connection with those components of the ELGE Remedy shall not constitute Qualified Costs to be counted toward the Floor or the Ceiling, and shall not otherwise be subject to cost-sharing under this

Section.

140. Provision of these EPA funds by EPA, other than from the Site Special Account, are subject to appropriated and unobligated funds being available in the Hazardous Substance Response Trust Fund ("Superfund") at the time the Owner/Operators are obligated to implement the Contingent Remedy or any portion of it.

141. Nothing in this Section shall affect Owner/Operators' obligation to design the Contingent Remedy selected by EPA pursuant to Section VI and VII of this Decree in a timely fashion, and Owner/Operators shall not postpone or delay the design or implementation of any Source Control Remedial Action pending the commencement or completion of any application process for EPA funds or other commitments under this Section.

142. In the event that the ELGE technology is constructed at the Site, Owner/Operators shall submit an "Innovative Technology Cost and Performance Report" for EPA review and approval pursuant to Section XII of this Decree after ELGE Remedy Performance Standards are met and maintained or EPA selects a Contingent Remedy.

143. By their acceptance of the foregoing payments, the Owner/Operators agree that in the event the

United States takes over the Source Control Remedial Action pursuant to Section XXIII, Paragraph 177, or for other reasons related to Owner/Operators' failure to perform, the Owner/Operators shall repay any payment or reimbursement made pursuant to this Section in full. Moreover, the Owner/Operators recognize that part of the consideration for the cost sharing in this Section is the Owner/Operators' agreement to forego challenges or dispute resolution concerning EPA's selection of the Source Control Remedy or Remedies. The United States, in the event it takes over the Source Control Remedial Action, reserves all its other rights and remedies, under this Decree or otherwise.

144.        Availability of Funds: The provisions in this Section regarding reimbursement and cost-sharing by EPA are subject to the availability of funds. Nothing in this Section or Consent Decree shall be interpreted or construed as a commitment or requirement that the United States obligate or pay funds in contravention of the Anti-Deficiency Act, 31 U.S.C. § 1341, or any other applicable provision of law.

**XIX. INDEMNIFICATION AND INSURANCE**

145.        a. Subject to Section V, Paragraph 32.C above, one or more of the Owner/Operators shall indemnify, save, and hold harmless the United States, the State, and their



officials, agents, employees, contractors, subcontractors, or representatives for or from any and all claims or causes of action arising from, or on account of, negligent or other wrongful acts or omissions of Owner/Operators, their officers, directors, employees, agents, contractors, subcontractors, and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Consent Decree.

Further, the Owner/Operators agree to pay the United States, or the State as the case may be, all costs they incur including, but not limited to, attorneys fees and other expenses of litigation and settlement arising from, or on account of, claims made against the United States and the State based on negligent or other wrongful acts or omissions of Owner/Operators, their officers, directors, employees, agents, contractors, subcontractors, and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Consent Decree. Neither the United States nor the State shall be held out as a party to any contract entered into by or on behalf of Owner/Operators in carrying out activities pursuant to this Consent Decree. Neither the Owner/Operators nor any such contractor shall be considered an agent of the United States or the State.

b. The United States and/or the State shall give

Owner/Operators notice of any claim for which the United States or the State plans to seek indemnification pursuant to Paragraph 145.a, and shall consult with Owner/Operators prior to settlement of any such claim.

146. Owner/Operators waive all claims against the United States and the State for damages or reimbursement or for set-off of any payments made or to be made to the United States or the State, arising from or on account of any contract, agreement, or arrangement between any one or more of Owner/Operators and any person for performance of Source Control Work on or relating to the Site, including, but not limited to, claims on account of construction delays. In addition, Owner/Operators shall indemnify and hold harmless the United States and the State with respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between any one or more of Owner/Operators and any person for performance of Source Control Work on or relating to the Site, including, but not limited to, claims on account of construction delays.

147. No later than fifteen (15) days before commencing any Source Control Remedial Action, Owner/Operators shall secure, or ensure that their contractors collectively secure, and shall maintain until the first anniversary of EPA's

Certifications of Completion of the Source Control Work pursuant to Paragraph 110 of Section XV (Certifications of Completion) comprehensive general liability insurance with limits of five million dollars, combined single limit, and automobile liability insurance with limits of \$500,000, combined single limit, naming the United States and the State as additional insureds. In addition, for the duration of this Consent Decree, Owner/Operators shall satisfy, or shall ensure that their contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of Worker's Compensation insurance for all persons performing the Source Control Work on behalf of Owner/Operators in furtherance of this Consent Decree. Prior to commencement of the Source Control Work under this Consent Decree, Owner/Operators shall provide to EPA certificates of such insurance and a copy of each insurance policy. Owner/Operators shall resubmit such certificates and copies of policies each year on the anniversary of the effective date of this Consent Decree. If Owner/Operators demonstrate by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering the same risks but in a lesser amount, then, with respect to that contractor or subcontractor, Owner/Operators need provide only

that portion of the insurance described above which is not maintained by the contractor or subcontractor. The Owner/Operators also may satisfy the provisions of this Paragraph if they submit to EPA for approval one of the financial assurance mechanisms of Section XIV (Assurance of Ability to Complete Source Control Work) in at least the amounts stated in this Paragraph.

**XX. FORCE MAJEURE**

148. "Force majeure," for purposes of this Consent Decree, is defined as any event arising from causes beyond the control of the Owner/Operators, of any entity controlled by Owner/Operators, or of Owner/Operators' contractors, that delays or prevents the performance of any obligation under this Consent Decree despite Owner/Operators' best efforts to fulfill the obligation. The requirement that the Owner/Operators exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential force majeure event and best efforts to address the effects of any potential force majeure event (a) as it is occurring, and (b) following the potential force majeure event, such that the delay is minimized to the greatest extent possible. "Force Majeure" does not include financial inability to complete the Source Control Work, a failure to attain the

Performance Standards, or increased costs. "Delay" for purposes of this Section may mean a permanent inability to perform, if Owner/Operators otherwise satisfy the requirements of this Section and demonstrate that the delay is permanent.

149. If any event occurs or has occurred that may delay the performance of any obligation under this Consent Decree, whether or not caused by a force majeure event, the Owner/Operators shall notify orally EPA's Project Coordinator or, in his or her absence, EPA's Alternate Project Coordinator within forty-eight (48) hours of when Owner/Operators first knew that the event might cause a delay. Within ten (10) days thereafter, Owner/Operators shall provide in writing to EPA an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; the Owner/Operators' rationale for attributing such delay to a force majeure event if they intend to assert such a claim; and a statement as to whether, in the opinion of the Owner/Operators, such event may cause or contribute to an endangerment to public health, welfare or the environment. The Owner/Operators shall include with any notice all available

documentation supporting their claim that the delay was attributable to a force majeure. Failure to comply with the above requirements shall preclude Owner/Operators from asserting any claim of force majeure for that event for the period of time of such failure to comply, and for any additional delay caused by such failure. Owner/Operators shall be deemed to know of any circumstance of which Owner/Operators, any entity controlled by Owner/Operators, or Owner/Operators' contractors knew or should have known.

150. If EPA, after a reasonable opportunity for review and comment by the State, agrees that the delay or anticipated delay is attributable to a force majeure event, the time for performance of the obligations under this Consent Decree that are affected by the force majeure event will be extended by EPA, after a reasonable opportunity for review and comment by the State, for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the force majeure event shall not, of itself, extend the time for performance of any other obligation. If EPA, after a reasonable opportunity for review and comment by the State, does not agree that the delay or anticipated delay has been or will be caused by a force majeure event, EPA will notify the Owner/Operators in writing of its

decision. If EPA, after a reasonable opportunity for review and comment by the State, agrees that the delay is attributable to a force majeure event, EPA will notify the Owner/Operators in writing of the length of the extension, if any, for performance of the obligations affected by the force majeure event.

151. If the Owner/Operators elect to invoke the dispute resolution procedures set forth in Section XXI (Dispute Resolution), they shall do so no later than fifteen (15) days after receipt of EPA's notice. In any such proceeding, Owner/Operators shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure event, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that Owner/Operators complied with the requirements of Paragraphs 149, above. If Owner/Operators carry this burden, the delay at issue shall be deemed not to be a violation by Owner/Operators of the affected obligation of this Consent Decree identified to EPA and the Court.

**XXI. DISPUTE RESOLUTION**

152. Unless otherwise expressly provided for in

this Consent Decree, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Consent Decree. However, the procedures set forth in this Section shall not apply to actions by the United States to enforce obligations of the Owner/Operators that have not been disputed in accordance with this Section. There shall be no dispute resolution or any other judicial review of (1) EPA's selection of a Contingent Remedy; (2) any decision by EPA not to amend the OUI ROD to select ELGE as a remedial alternative at the Site; (3) any refusal or failure by EPA to declare failure of the ELGE Remedy and/or ELGE Operation and Maintenance; (4) any other matters for which this Decree expressly states there will be no judicial review. The Owner/Operators may use the procedures in this Section to dispute, inter alia, any determination by EPA that the ELGE Remedy and/or ELGE Remedy Operation and Maintenance has failed or will fail to meet or maintain the ELGE Performance Standards. The dispute resolution procedures (and any related obligations) as set forth in this Section shall apply only to the Owner/Operator who initiates these procedures.

153. Any dispute which arises under or with respect to this Consent Decree shall in the first instance be



the subject of informal negotiations between the parties to the dispute. The period for informal negotiations shall not exceed twenty (20) days from the time the dispute arises, unless it is modified by written agreement of the parties to the dispute.

The dispute shall be considered to have arisen when one party receives from another party a written Notice of Dispute.

154. a. In the event that the parties cannot resolve a dispute by informal negotiations under the preceding Paragraph, then the position advanced by EPA shall be considered binding unless, within twenty (20) days after the conclusion of the informal negotiation period, Owner/Operators invoke the formal dispute resolution procedures of this Section by serving on the United States a written Statement of Position on the matter in dispute, including, but not limited to, any factual data, analysis or opinion supporting that position and any supporting documentation relied upon by the Owner/Operators. The Statement of Position shall specify the Owner/Operators' position as to whether formal dispute resolution should proceed under Paragraph 155 or Paragraph 156.

b. Within twenty (20) days after receipt of Owner/Operators' Statement of Position, EPA will serve on Owner/Operators its Statement of Position, including, but not limited to, any factual data, analysis, or opinion supporting

that position and all supporting documentation relied upon by EPA. EPA's Statement of Position shall include a statement as to whether formal dispute resolution should proceed under Paragraph 155 or 156. Within twenty (20) days after receipt of EPA's Statement of Position, Owner/Operators may submit a Reply.

c. If there is disagreement between EPA and the Owner/Operators as to whether dispute resolution should proceed under Paragraph 155 or 156, the parties to the dispute shall follow the procedures set forth in the Paragraph determined by EPA to be applicable. However, if the Owner/Operators ultimately appeal to the Court to resolve the dispute, the Court shall determine which Paragraph is applicable in accordance with the standards of applicability set forth in Paragraphs 155 and 156.

155. Formal dispute resolution for disputes pertaining to the selection or adequacy of any response action and all other disputes that are accorded review on the administrative record under applicable principles of administrative law shall be conducted pursuant to the procedures set forth in this Paragraph. For purposes of this Paragraph, the adequacy of any response action includes, without limitation: (1) the adequacy or appropriateness of

plans, procedures to implement plans, or any other items requiring approval by EPA under this Consent Decree; (2) the adequacy of the performance of response actions taken pursuant to this Consent Decree; and (3) EPA's determination that the ELGE Remedy and/or ELGE Operation and Maintenance, if selected by EPA, have failed to meet ELGE Performance Standards. Nothing in this Consent Decree shall be construed to allow any dispute by Owner/Operators regarding the validity of the ROD's and/or ROD Amendments' provisions.

a. An administrative record of the dispute shall be maintained by EPA and shall contain all statements of position, including supporting documentation, submitted pursuant to this Section. Where appropriate, EPA may allow submission of supplemental statements of position by the parties to the dispute.

b. The Director of the Hazardous Sites Cleanup Division, EPA Region III, will issue a final administrative decision resolving the dispute based on the administrative record described in Paragraph 155.a. This decision shall be binding upon the Owner/Operators, subject only to the right to seek judicial review pursuant to Paragraph 155.c. and d.

c. Any administrative decision made by EPA pursuant to Paragraph 155.b. shall be reviewable by this Court, provided

that a motion for judicial review of the decision is filed by the Owner/Operators with the Court and served upon all Parties within thirty (30) days of receipt of EPA's decision. The motion shall include a description of the matter in dispute, the efforts made by the Parties to resolve it, the relief requested, and the schedule, if any, within which the dispute must be resolved to ensure orderly implementation of this Consent Decree. The United States may file a response to Owner/Operators' motion.

d. In proceedings on any dispute governed by this Paragraph, Owner/Operators shall have the burden of demonstrating that the decision of the Director of the Hazardous Sites Cleanup Division, EPA Region III, is arbitrary and capricious or otherwise not in accordance with law. Judicial review of EPA's decision shall be on the administrative record compiled pursuant to Paragraph 155.a.

156. Formal dispute resolution for disputes that neither pertain to the selection or adequacy of any response action nor are otherwise accorded review on the administrative record under applicable principles of administrative law, shall be governed by this Paragraph.

a. Following receipt of Owner/Operators' Statement of Position submitted pursuant to Paragraph 154, the Director

of the Hazardous Sites Cleanup Division, EPA Region III, will issue a final decision resolving the dispute. The Director's decision shall be binding on the Owner/Operators unless, within thirty (30) days of receipt of the decision, the Owner/Operators file with the Court and serve on the Parties a motion for judicial review of the decision setting forth the matter in dispute, the efforts made by the Parties to resolve it, the relief requested, and the schedule, if any, within which the dispute must be resolved to ensure orderly implementation of the Consent Decree. The United States may file a response to Owner/Operators' motion.

b. Notwithstanding Paragraph 21 of Section I (Background) of this Consent Decree, judicial review of any dispute governed by this Paragraph shall be governed by applicable principles of law.

157. The invocation of formal dispute resolution procedures under this Section shall not extend, postpone, or affect in any way any obligation of the Owner/Operators under this Consent Decree unless EPA or the Court agrees otherwise. Stipulated penalties with respect to the disputed matter shall continue to accrue but payment shall be stayed pending resolution of the dispute as provided in Paragraph 161. Notwithstanding the stay of payment, stipulated penalties shall

accrue from the first day of non-compliance with any applicable provision of this Consent Decree. In the event that the Owner/Operators do not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section XXII (Stipulated Penalties).

**XXII. STIPULATED PENALTIES**

158. Subject to Section V, Paragraph 32.C above, Owner/Operators shall be liable for stipulated penalties in the amounts set forth in this Section to the United States and the State for failure to comply with the requirements of this Consent Decree specified below, unless excused under Section XX (Force Majeure). "Compliance" by Owner/Operators shall include completion of the activities under this Consent Decree or any Work Plan or other plan approved under this Consent Decree identified below in accordance with all applicable requirements of law, this Consent Decree, and any plans or other documents approved by EPA pursuant to this Consent Decree and within the specified time schedules established by and approved under this Consent Decree.

159. a. The following stipulated penalties shall accrue per violation per day for any noncompliance identified in Subparagraph b:

<u>Penalty Per Violation</u> <u>Per Day</u>	<u>Period of Noncompliance</u>
--	--------------------------------

\$ 4,000	1st through 14th day
7,500	15th through 30th day
10,000	31st day and beyond

b. Failure to comply with requirements of Section VII (Performance of the Source Control Work by Owner/Operators), exclusive of Paragraph 49 through 50, Section VIII (Remedy Review), Section IX (Quality Assurance, Sampling, and Data Analysis), Section XII (EPA Approval of Plans and Other Submissions), and Section XVI (Emergency Response).

160. a. The following stipulated penalties shall accrue per violation per day for any noncompliance identified in Subparagraph b:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$ 800	1st through 14th day
1,000	15th through 30th day
2,500	30th day and beyond

b. All requirements of this Consent Decree that are not identified in Paragraph 159(b) of this Consent Decree, including violations of Section VII (Performance of the Source Control Work by Owner/Operators), Paragraph 49 through 50.

161. All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs, and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity, except as otherwise provided herein.

Stipulated penalties shall not accrue: (1) with respect to a deficient submission under Section XII (EPA Approval of Plans and Other Submissions), during the period, if any, beginning on the 31st day after EPA's receipt of such submission until the date that EPA notifies Owner/Operators of any deficiency; (2) with respect to a decision by the Director of the Hazardous Sites Cleanup Division, EPA Region III, under Paragraph 155.b. or 156.a. of Section XXI (Dispute Resolution), during the period, if any, beginning on the 21st day after the date that Owner/Operators' reply to EPA's Statement of Position is received until the date that the Director of the Hazardous Sites Cleanup Division, EPA Region III, issues a final decision regarding such dispute; or (3) with respect to judicial review by this Court of any dispute under Section XXI (Dispute Resolution), during the period, if any, beginning on the 31<sup>st</sup> day after the Court's receipt of the final submission regarding the dispute until the date that the Court issues a final decision regarding such dispute. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Consent Decree.

162. Following EPA's determination that Owner/Operators have failed to comply with a requirement of this Consent Decree, EPA may give Owner/Operators written



notification of the same and describe the noncompliance. EPA may send the Owner/Operators a written demand for the payment of the penalties. However, penalties shall accrue as provided in the preceding Paragraph regardless of whether EPA has notified the Owner/Operators of a violation.

163. Owner/Operators shall pay fifty percent (50%) of the stipulated penalties to the United States and fifty percent (50%) of the penalties to the State. All penalties accruing under this Section shall be due and payable to the United States and to the State within thirty (30) days of the Owner/Operators' receipt from EPA of a demand for payment of the penalties, unless Owner/Operators invoke the Dispute Resolution procedures under Section XXI (Dispute Resolution). Payment of the fifty percent (50%) of the penalty due to the United States under this Section shall be paid by certified or cashier's check(s) made payable to "EPA Hazardous Substances Superfund," shall be mailed to the United States Environmental Protection Agency, Region III, Attention: Superfund Accounting, P.O. Box 360515, Pittsburgh, PA 15251-6515, shall indicate that the payment is for stipulated penalties, and shall reference the EPA Region and Site/Spill ID #03L9, the DOJ Case Number 90-11-2-656A, and the name and address of the party making payment. Copies of check(s) paid

pursuant to this Section, and any accompanying transmittal letter(s), shall be sent to the United States as provided in Section XXVIII (Notices and Submissions), and to the Docket Clerk (3RC00), United States Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, PA 19103. Payment of the 50% due to the State shall be made by certified check, certified mail, return receipt requested, to: Lauree Balsbaugh, Pennsylvania Department of Environmental Protection, P.O. Box 8471, Harrisburg, PA 17105-8471.

164. The payment of penalties shall not alter in any way Owner/Operators' obligation to complete the performance of the Source Control Work required under this Consent Decree.

165. Penalties shall continue to accrue as provided in Paragraph 161 during any dispute resolution period, but need not be paid until the following:

a. If the dispute is resolved by agreement or by a decision of EPA that is not appealed to this Court, accrued penalties determined to be owing shall be paid to EPA and the State within fifteen (15) days of the agreement or the receipt of EPA's decision or order;

b. If the dispute is appealed to this Court and the United States prevails in whole or in part, Owner/Operators shall pay all accrued penalties determined by the Court to be

owed to EPA and the State within sixty (60) days of receipt of the Court's decision or order, except as provided in Subparagraph c below;

c. If the District Court's decision is appealed by any Party, Owner/Operators shall pay all accrued penalties determined by the District Court to be owing to the United States or the State into an interest-bearing escrow account within sixty (60) days of receipt of the Court's decision or order. Penalties shall be paid into this account as they continue to accrue, at least every sixty (60) days. Within fifteen (15) days of receipt of the final appellate court decision, the escrow agent shall pay the balance of the account to EPA and the State or to Owner/Operators to the extent that they prevail.

166. a. If Owner/Operators fail to pay stipulated penalties when due, the United States may institute proceedings to collect the penalties, as well as interest. Owner/Operators shall pay Interest on the unpaid balance, which shall begin to accrue on the date of demand made pursuant to Paragraph 162 and 163.

b. Nothing in this Consent Decree shall be construed as prohibiting, altering, or in any way limiting the ability of the United States to seek any other remedies or

sanctions available by virtue of Owner/Operators' violation of this Decree or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Section 122(1) of CERCLA. Provided, however, that for any particular violation of this Consent Decree, the United States shall be limited to either demanding stipulated penalties pursuant to this Section XXII of the Consent Decree or to pursuing civil penalties pursuant to Section 122(1) of CERCLA.

167. Notwithstanding any other provision of this Section, the United States may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Consent Decree.

**XXIII. COVENANTS NOT TO SUE BY UNITED STATES AND THE STATE**

168. Covenant of the United States: In consideration of the actions that will be performed by the Owner/Operators and the Related Keystone Parties under the terms of this Consent Decree, and except as specifically provided in Paragraphs 169 and 170 (reservations of rights and reopeners) of this Section, the United States covenants not to sue or to take administrative action against Owner/Operators, the Related Keystone Parties, and Related Persons pursuant to Sections 106, 107(a), including federal claims for natural resource damages, 107(c)(3), and 113(g) of CERCLA, 42 U.S.C. §§

9606, 9607(a), 9613(c)(3), and 9613(g), or Section 7003 of RCRA, 42 U.S.C. § 6973, relating to the Site. Except with respect to future liability, these covenants not to sue shall take effect upon entry of this Consent Decree. With respect to the Owner/Operators' future liability, these covenants not to sue shall take effect upon Certification of Completion of the Final Remedial Action by EPA pursuant to Paragraphs 111 and 112 of Section XV ("Certifications of Completion"). With respect to the Related Keystone Parties' future liability, these covenants not to sue shall take effect upon entry of the Consent Decree. These covenants not to sue are conditioned upon the complete and satisfactory performance by the Owner/Operators of their obligations under this Consent Decree. These covenants not to sue extend only to the Owner/Operators, the Related Keystone Parties, and Related Persons and do not extend to any other persons.

169. United States' Pre-Certification

Reservation of Rights. Notwithstanding any other provision of this Consent Decree, the United States reserves, and this Consent Decree is without prejudice to, the right to institute proceedings in this action or in a new action, or to issue an administrative order seeking to compel Owner/Operators (1) to perform further response actions relating to the Site or (2) to

reimburse the United States for additional costs of response if, prior to Certification of Completion of the Final Remedial Action:

- a. conditions at the Site, previously unknown to EPA, are discovered, or
- b. information, previously unknown to EPA, is received, in whole or in part,

and these previously unknown conditions or information together with any other relevant information indicate that the Final Remedial Action is not protective of human health or the environment. For purposes of this Paragraph, the information and conditions known to EPA shall include only that information and those conditions set forth in the OU1 ROD, the administrative record compiled for that ROD, the administrative record(s) (including the FFS and public comments) compiled for the OU1 ROD Amendment for Groundwater and the OU1 ROD Amendment for Source Control, if any, and the final ROD Amendment(s) or other final decision document issued in connection therewith, and all data collected at the Site and the analyses performed thereon and available to EPA as of the date of the later of the OU1 ROD Amendment for Groundwater or the OU1 ROD Amendment for Source Control, the documents related to the OU1 ROD submitted to EPA pursuant to the UAO and the Waste Management UAO as of

the date of signing of this Consent Decree by the Regional Administrator; and all pleadings, motions, briefs, and submissions (including documents referenced in those pleadings, motions, briefs, and submissions) filed by any parties in this action prior to the date of signing of this Consent Decree by the Regional Administrator.

170. United States' Post-Certification

Reservations of Rights. Notwithstanding any other provision of this Consent Decree, the United States reserves, and this Consent Decree is without prejudice to, the right to institute proceedings in this action or in a new action, or to issue an administrative order seeking to compel Owner/Operators (1) to perform further response actions relating to the Site or (2) to reimburse the United States for additional costs of response if, subsequent to Certification of Completion of the Final Remedial Action:

- a. conditions at the Site, previously unknown to EPA, are discovered, or
- b. information, previously unknown to EPA, is received, in whole or in part,

and these previously unknown conditions or information together with other relevant information indicates that the Final Remedial Action is not protective of human health or the

environment. For purposes of this Paragraph, the information and the conditions known to EPA shall include only that information and those conditions set forth in the documents described in Paragraph 169 above, as well as, prior to Certification of Completion of the Final Remedial Action: any subsequent ROD or decision document selecting a remedy at the Site and the administrative record compiled for that ROD, any post-ROD administrative record, and any information and those conditions set forth in documents in the possession and/or control of EPA acquired prior to the Certification of Completion of the Final Remedial Action.

171. Covenant by the State: With regard to known environmental conditions at the Site, as defined in Paragraphs 172 and 173 of this Consent Decree, and in consideration of the actions that will be performed and the payment required to be made by the Owner/Operators to the State under the terms of this Consent Decree, and except as specifically provided in Paragraphs 172 and 173 (reopeners and reservations) of this Section, the State covenants not to sue or to take administrative action against Owner/Operators, the Related Keystone Defendants, and Related Persons for any and all civil liability for the Matters Addressed in this Settlement, including but not limited to, liability for past and future



response costs and State Natural Resource Damages, pursuant to Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), Sections 701, 702 and 1102 of HSCA, 35 P.S. §§ 6020.701, 6020.702, and 6020.1102, the Pennsylvania Clean Streams Law, 35 P.S. §§ 691.1 et seq., the Pennsylvania Solid Waste Management Act, 35 P.S. §§ 6018.101 et seq., or any other state or federal statutory or common law relating to the Site. Except with respect to future liability, these covenants shall take effect upon receipt of the payments required to be made to the State for State Past Response Costs and State Natural Resource Damages under Section XVII (Reimbursement of Response Costs) by the Owner/Operators. With respect to the Owner/Operators' future liability, pursuant to Section 706 of HSCA, 35 P.S. § 6020.706, these covenants not to sue become effective when the State determines that the requirements of HSCA have been met and the Site no longer presents a current or currently foreseeable future significant risk to the public health and welfare or the environment, and certifies the completion of the Remedial Action pursuant to Section 706(c) of HSCA, 35 P.S. § 6020.706(c). With respect to the Related Keystone Parties' future liability, these covenants not to sue shall take effect upon entry of this Consent Decree. The covenants not to sue the Owner/Operators are conditioned upon the complete and satisfactory performance by the

Owner/Operators of their obligations under this Consent Decree. These covenants extend only to the Owner/Operators and Related Keystone Parties and do not extend to any other persons.

172. State's Pre-certification Reservations:

Notwithstanding any other provision of this Consent Decree, the State reserves, and this Consent Decree is without prejudice to, whatever rights the State may have to institute proceedings in this action or in a new action, or to issue an administrative order seeking to compel Owner/Operators (1) to perform further response actions relating to the Site or (2) to reimburse the State for additional costs of response if, prior to certification of completion of the remedial action by the State pursuant to Section 706(c) of HSCA, 35 P.S. §

6020.706(c):

- i. conditions at the Site, previously unknown to EPA and the State, are discovered, or
- ii. information, previously unknown to EPA and the State, is received, in whole or in part,

and these previously unknown conditions or information together with any other relevant information indicate that the remedial action is not protective of human health or the environment.

For purposes of this Paragraph 172 of this Section XXIII, the

information and conditions known to EPA and the State shall include only that information and those conditions set forth in the OUI ROD, the administrative record compiled for that ROD, the administrative record(s) (including the FFS and public comments) compiled for the OUI ROD Amendment for Groundwater and the OUI ROD Amendment for Source Control, if any, and the final ROD Amendments or other final decision documents issued in connection therewith, and all data collected at the Site and analyses performed thereon and available to EPA or the State as of the date of the OUI ROD Amendment for Source Control, the documents related to the OUI ROD submitted by the Owner/Operators to EPA or the State pursuant to the UAO and the Waste Management UAO as of the date of signing of this Consent Decree by the Regional Administrator and the State; and all pleadings, motions, briefs, and submissions (including documents referenced in those pleadings, motions, briefs, and submissions) filed by any party in this action prior to the date of signing of this Consent Decree by the Regional Administrator and the State; and all data, analyses, reports and any other information provided to or obtained by the State pursuant to its role in regulating the Site pursuant to Pennsylvania law governing municipal or solid waste disposal facilities.

173. State's Post-Certification Reservations.

Notwithstanding any other provision of this Consent Decree, the State reserves, and this Consent Decree is without prejudice to, whatever rights the State may have to institute proceedings in this action or in a new action, or to issue an administrative order seeking to compel Owner/Operators (1) to perform further response actions relating to the Site or (2) to reimburse the State for additional costs of response only if, subsequent to certification of completion of the remedial action by the State pursuant to Section 706(c) of HSCA, 35 P.S. § 6020.706(c):

- i. conditions at the Site, previously unknown to EPA and the State, are discovered, or
- ii. information, previously unknown to EPA and the State, is received, in whole or in part,

and these previously unknown conditions or information together with any other relevant information indicate that the remedial action is not protective of human health or the environment.

For purposes of this Paragraph, the information and the conditions known to EPA and the State shall include only that information and those conditions set forth in the documents described in Paragraph 172 above, as well as, prior to

Certification of Completion of the Final Remedial Action: any subsequent ROD or similar document selecting a remedy at the Site and the administrative record compiled for that ROD, any post-ROD administrative record and any information and those conditions set forth in documents in the possession and/or control of EPA or the State acquired prior to the Certification of Completion of the Final Remedial Action.

174. Reservations Concerning Natural Resource Damages of the United States: Notwithstanding any other provision of this Decree, the United States, on behalf of its natural resource trustees, reserves the right to institute proceedings against the Owner/Operators in this action or in a new action seeking recovery of natural resource damages, based on (1) conditions with respect to the Site, unknown to the United States at the date of lodging of this Decree, that result in releases of hazardous substances that contribute to injury to, destruction of, or loss of natural resources, or (2) information received after the date of lodging of the Decree which, together with other relevant information, indicates that there is injury to, destruction of, or loss of natural resources, of a type that was unknown, or of a magnitude greater than was known to the United States at the date of lodging of this Decree. The information and conditions known

to the United States shall also include any potential impact that the pumping of groundwater and the discharge of treated groundwater may have on wetlands, surface water, habitat or other natural or human resources.

175.        State Reservations For Natural Resource

Damages:

Notwithstanding any other provision of this Decree, the State, as the trustee of the Commonwealth's natural resources, reserves the right to institute proceedings against the Owner/Operators in this action or in a new action seeking recovery of Natural Resource Damages, based on (1) conditions with respect to the Site, unknown to the State at the date of lodging of this Decree, that result in releases of hazardous substances that contribute to injury to, destruction of, or loss of natural resources, or (2) information received after the date of lodging of the Decree which, together with other relevant information, indicates that there is injury to, destruction of, or loss of natural resources, of a type that was unknown, or of a magnitude greater than was known to the State at the date of lodging of this Decree. The information and conditions known to the State shall also include any potential impact that the pumping of groundwater and the discharge of treated groundwater may have on wetlands, surface

water, habitat or other natural or human resources.

176.       Specific Reservations of Rights. The covenants not to sue set forth in this Section do not pertain to any matters other than those expressly specified therein. The United States and the State reserve, and this Consent Decree is without prejudice to, all rights against Owner/Operators, Related Keystone Parties, and Related Persons, with respect to all other matters, including but not limited to, the following:

- a.   liability for the failure of Owner/Operators to meet a requirement of this Consent Decree;
- b.   liability arising from the past, present, or future disposal, release, or threat of release of a hazardous substance, pollutant, or contaminant outside of the Site;
- c.   criminal liability;
- d.   liability for past, present or future violations of federal law other than liability resolved by this Consent Decree;
- e.   liability, prior to Certification of Completion of the Final Remedial Action, for additional response actions, exclusive of the Groundwater Remedial Action, that EPA determines are

necessary to achieve Source Control Performance Standards, but that cannot be required pursuant to Section VII, Paragraph 55 (Modification of Landfill Cap Remedy and Operation and Maintenance) or Paragraphs 69 (Modification of ELGE Remedy and Operation and Maintenance).

177.     Source Control Work Takeover. In the event EPA determines that Owner/Operators have ceased implementation of any portion of the Source Control Work, are seriously or repeatedly deficient or late in their performance of the Source Control Work, or are implementing the Source Control Work in a manner which may cause an endangerment to human health or the environment, EPA may assume the performance of all or any portions of the Source Control Work as EPA determines necessary. Owner/Operators may invoke the procedures set forth in Section XXI (Dispute Resolution), Paragraph 155 (record review), to dispute EPA's determination that takeover of the Source Control Work is warranted under this Paragraph. Costs incurred by the United States in performing the Source Control Work pursuant to this Paragraph shall be considered Future Response Costs that Owner/Operators shall pay pursuant to Section XVII (Reimbursement of Response Costs and Natural Resource Damages and Payment of Penalties).



178. Notwithstanding any other provision of this Consent Decree, the United States and the State retain all authority and reserve all rights to take any and all response actions authorized by law.

**XXIV. COVENANTS NOT TO SUE BY OWNER/OPERATORS**

179. Upon entry of this Consent Decree, and subject to the reservations in Paragraph 180, Owner/Operators, the Related Keystone Parties, and Related Persons hereby covenant not to sue and agree not to assert any claims or causes of action against the United States, the State, or their contractors or employees, with respect to the Site or this Consent Decree, including, but not limited to, any direct or indirect claim for reimbursement from the Hazardous Substance Superfund (established pursuant to the Internal Revenue Code, 26 U.S.C. § 9507) through Sections 106(b)(2), 111, 112, or 113 of CERCLA, 42 U.S.C. §§ 9606(b)(2), 9611, 9612 or 9613, any direct or indirect claim for reimbursement from the State Hazardous Sites Cleanup Fund, 35 P.S. § 6020.91, or any other provision of law, any claim against the United States and the State, including any department, agency or instrumentality of the United States and the State under CERCLA Sections 107 or 113 related to the Site, or any claims arising out of response activities at the Site. Nothing in this Consent Decree shall

be deemed to constitute preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

180. The Owner/Operators and Related Keystone Parties reserve, and this Consent Decree is without prejudice to, claims against the United States, subject to the provisions of Chapter 171 of Title 28 of the United States Code; and the State for money damages for injury or loss of property or personal injury or death caused by the negligent or wrongful act or omission of any employee of the United States and the State while acting within the scope of his or her office or employment under circumstances where the United States or the State, if a private person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred. However, any such claim shall not include a claim for any damages caused, in whole or in part, by the act or omission of any person, including any contractor, who is not a federal employee as that term is defined in 28 U.S.C. § 2671; nor shall any such claim include a claim based on EPA's selection of response actions, or the oversight or approval of the Owner/Operators' plans or activities. The foregoing reservations in this Paragraph apply only to claims which are brought pursuant to any statute other than CERCLA and for which

of HSCA, 35 P.S. §§ 6020.101 et seq., or claims seeking similar relief, that they may have, including for contribution, only against persons falling within either of the following subparagraphs:

a. any person (i) whose liability to Owner/Operators, Related Keystone Parties, or Related Persons with respect to the Site is based solely on Section 107(a)(3) or (4) of CERCLA, 42 U.S.C. § 9607(a)(3) or (4), (ii) who arranged for the disposal, treatment, or transport for disposal or treatment, or accepted for transport for disposal or treatment, at the Site of only Municipal Solid Waste or Sewage Sludge owned by such person, and (iii) whose volume of Municipal Solid Waste or sewage sludge disposed of at the Site does not exceed 18,000 cubic yards;

b. any person (i) whose liability to Owner/Operators, Related Keystone Parties, or Related Persons with respect to the Site is based solely on Section 107(a)(3) or (4) of CERCLA, 42 U.S.C. § 9607(a)(3) or (4) and (ii) who arranged for the disposal, treatment, or transport for disposal or treatment, or accepted for transport for disposal or treatment, at the Site of 1800 cubic yards or less, of which not more than 55 gallons or 100 pounds consisted of materials containing hazardous substances derived from commercial,

institutional, or industrial processes or activities (except where EPA has determined that such material contributed or could contribute significantly to the costs of response at the Site) and the balance consisted of Municipal Solid Waste or Sewage Sludge;

except that in the event a person or party in subparagraphs (a) or (b) files a claim against an Owner/Operator, Related Keystone Party, or Related Person, the Owner/Operator, Related Keystone Party, or Related Person may assert claims or defenses against such person or party as necessary to defend against such a claim.

183. The United States, and the State to the extent the State exercises its reservation of rights, reserves the right to enforce the waivers and releases in Paragraphs 181 and 182 (substantive waivers) of this Section under the terms of this Consent Decree. The Owner/Operators, Related Keystone Parties, and Related Persons agree, and the Court by entering this Consent Decree finds, that the specified claims against parties that meet the criteria in Paragraphs 181 and 182 of this Section are barred. A party sued by the Owner/Operators, Related Keystone Parties, and Related Persons may assert as a defense or bar to such an action that the party meets the criteria in the Paragraphs 181 and 182 and, in the event the

Court determines that they do satisfy those criteria, the claims shall be dismissed.

184. Upon entry of this Consent Decree, Owner/Operators, the Related Keystone Parties, and Related Persons agree that, for Matters Addressed in the Settlement, they shall: (1) agree not to challenge, contest, or submit comments upon any other consent decrees entered into by the United States and any other parties to this action, to the extent such settlements pertain to the Matters Addressed in this Settlement; (2) withdraw with prejudice their objections to any consent decree between the United States and/or PADEP and any party, including but not limited to the de micromis settlements, the October 22, 1997 cash-out consent decree, and the OGD consent decree, at the Site pertaining to Matters Addressed in the Settlement; (3) withdraw with prejudice any pending challenges to the EPA-selected remedies at the Site; (4) refrain from and forego any right to appeal or otherwise seek review of any opinion, ruling, or order entering consent decrees between the United States and/or PADEP and any party pertaining to Matters Addressed in the Settlement at the Site; and (5) withdraw with prejudice their pending requests for information and judicial action under the Freedom of Information Act, 5 U.S.C. § 552, as amended ("FOIA") (and the

United States in consideration for that withdrawal agrees not to seek any costs or charges for same) and further agree not to submit future FOIA requests or to institute future FOIA litigation pertaining to Matters Addressed in the Settlement, except to the extent necessary to obtain data or technical information required for performance of the Source Control Work or for proceedings under Section XXI (Dispute Resolution).

185. These covenants shall not bar Owner/Operators, the Related Keystone Parties, or Related Persons from asserting against the United States or any other party not within the scope of Paragraphs 181 and 182 claims they would otherwise have that arise in the future out of an action taken or claim made by EPA, the United States or the State pursuant to the authority reserved in Section XXIII, Paragraphs 169, 170, 172, 173, 174, and 175 (reservations and reopeners) of this Consent Decree. Nothing in this Consent Decree shall be deemed to constitute preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

**XXV. EFFECT OF SETTLEMENT; CONTRIBUTION PROTECTION**

186. Except as provided in Section XXIV, Paragraphs 181 and 182 (waivers), nothing in this Consent Decree shall be construed to create any rights in, or grant any

cause of action to, any person not a party to this Consent Decree. The preceding sentence shall not be construed to waive or nullify any rights that any person not a signatory to this Consent Decree may have under applicable law. Except to the extent provided in Section XXIV, Paragraphs 181 and 182, each of the Parties expressly reserves any and all rights (including, but not limited to, any right to contribution), defenses, claims, demands, and causes of action which each party may have with respect to any matter, transaction, or occurrence relating in any way to the Site against any person not a party hereto.

187. With respect to claims for contribution by any person, under any state or federal law or common law against Owner/Operators, Related Keystone Parties, and Related Persons for matters addressed in this Consent Decree, the Parties hereto agree, and the Court by entering this Decree finds, that the Owner/Operators, Related Keystone Parties, and Related Persons are entitled to such protection from contribution actions or claims as is provided by Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2), for Matters Addressed in this Settlement.

188. a. Subject to the State's reservation of rights in Paragraphs 172 and 173, each of the Owner/Operators,

Related Keystone Parties, and Related Persons is a person that has resolved its liability to the State for the Site and is entitled to protection from claims for contribution regarding Matters Addressed in the Settlement, as provided by Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2), and Section 705(c)(2) of HSCA, 35 P.S. § 6020.705(c)(2). This contribution protection is intended to be as broad as possible under CERCLA and HSCA for the Matters Addressed in the Settlement.

b. Each of the Owner/Operators, Related Keystone Parties, and Related Persons acknowledges that the State has no obligation to defend it in any suit, demand, or claim for contribution for any matters arising from the release and threatened release of hazardous substances at the Site, arising out of the response actions at the Site, or arising out of this Consent Decree.

189. Except as provided in Paragraphs 181 and 182(Waivers), the Owner/Operators, Related Keystone Parties, and Related Persons agree not to assert any additional contribution actions, pursuant to Sections 107 or 113 of CERCLA, for the Matters Addressed in this Settlement for which they receive contribution protection. Owner/Operators, the Related Keystone Parties, and Related Persons further agree that, with respect to any suit or claim for contribution



pursuant to CERCLA brought by them for matters not addressed in this Consent Decree but relating to the Site, they will notify the United States in writing no later than sixty days prior to initiation of such suit or claim. The Owner/Operators, Related Keystone Parties, and Related Persons also agree that with respect to any suit or claim for contribution brought against them pursuant to CERCLA for matters related to this Site they will notify in writing the United States within ten (10) days of service of the complaint. In addition, Owner/Operators, the Related Keystone Parties, and Related Persons shall notify the United States within ten (10) of service or receipt of any Motion for Summary Judgment and within ten (10) days of receipt of any order from a court setting a case for trial on matters related to this Consent Decree. Owner/Operators, Related Keystone Parties, and Related Persons acknowledge that the United States has no obligation to defend them in any suit or claim for contribution.

190. In any subsequent administrative or judicial proceeding initiated by the United States and/or the State for injunctive relief, recovery of response costs, or other appropriate relief relating to the Site, Owner/Operators, Related Keystone Parties, and Related Persons shall not assert, and may not maintain, any defense or claim based upon the

principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States and/or the State in the subsequent proceeding were or should have been brought in the instant case; provided, however, that nothing in this Paragraph affects the enforceability of the covenants not to sue set forth in Section XXIII (Covenants Not to Sue by Plaintiff).

191.        No Admissions. Nothing in this Consent Decree shall be construed as an admission of any fact, law, or liability on the part of Owner/Operators, Related Keystone Parties, and Related Persons. The United States, the State, and the Owner/Operators, Related Keystone Parties, and Related Persons agree that neither this Consent Decree, nor any part hereof, nor the entry into, nor any performance under this Consent Decree, by any of the Owner/Operators, Related Keystone Parties, or Related Persons, shall constitute or be construed as a finding or admission or acknowledgment of the factual or legal allegations contained in this Consent Decree or in the Complaints, or any liability, fault, wrongdoing, or evidence of such, or an admission or violation of any law, rule, regulation, or policy, by any Owner/Operator, Related Keystone Party, or Related Person. This Consent Decree shall not be

admissible into evidence in any proceeding for the purpose of establishing any liability on the part of Owner/Operators, Related Keystone Party, or Related Person relating to the Site, including without limitation any liability pursuant to the Unilateral Administrative Order or the Waste Management UAO, provided, however, that this Consent Decree may be offered into evidence by any party hereto in a proceeding to enforce the terms, conditions, or effect of this Consent Decree. The Owner/Operators expressly deny that they failed to comply with the UAO or the Waste Management UAO and/or failed to comply with the UAO or the Waste Management UAO without sufficient cause. The Owner/Operators also expressly deny any liability under Section 106(b)(1) and 107(c)(3) of CERCLA which is based upon principles of successor liability.

**XXVI. ACCESS TO INFORMATION**

192. Subject to the provisions of the following Paragraph, Owner/Operators shall, upon request, provide to EPA and the State copies of all documents and information within their possession or control or that of their contractors or agents relating to activities at the Site or to the implementation of this Consent Decree, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic

routing, correspondence, or other documents or information related to the Source Control Work. Owner/Operators shall also make available to EPA and the State, for purposes of investigation, information gathering, or testimony, their employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Source Control.

193. a. Owner/Operators may assert business confidentiality claims covering part or all of the documents or information submitted to Plaintiffs under this Consent Decree to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Documents or information determined to be confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies documents or information when they are submitted to EPA, or if EPA has notified Owner/Operators that the documents or information are not confidential under the standards of Section 104(e)(7) of CERCLA, the public may be given access to such documents or information without further notice to the Owner/Operators.

b. The Owner/Operators may assert that certain documents, records and other information are protected as

attorney work product or are privileged under the attorney-client privilege or any other privilege recognized by federal law. If the Owner/Operators assert such a protection or privilege in lieu of providing documents, they shall provide the Plaintiffs with the following: (1) the title of the document, record, or information; (2) the date of the document, record, or information; (3) the name and title of the author of the document, record, or information; (4) the name and title of each addressee and recipient; (5) a description of the contents of the document, record, or information; and (6) the privilege asserted by Owner/Operators.

194. However, no documents, reports, or other information required to be submitted pursuant to the requirements of this Consent Decree shall be withheld on grounds that they are privileged. No claim of confidentiality shall be made with respect to any data, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or engineering data developed pursuant to this Consent Decree or its Attachments evidencing conditions at or around the Site.

#### **XXVII. RETENTION OF RECORDS**

195. Until ten (10) years after Owner/Operator's receipt of EPA's notification pursuant to Paragraph 112 of

Section XV (Certifications of Completion), each Owner/Operator shall preserve and retain all records and documents now in its possession or control or which come into its possession or control that relate in any manner to the performance of the Source Control Work or Work under the UAO or Waste Management. UAO, or liability of any person for response actions conducted and to be conducted at the Site, regardless of any corporate retention policy to the contrary. Until ten (10) years after Owner/Operator's receipt of EPA's notification pursuant to Paragraph 112, Section XV (Certifications of Completion), Owner/Operators shall also instruct their contractors and agents to preserve all documents, records, and information of whatever kind, nature, or description relating to the performance of the Source Control Work.

196. At the conclusion of this document retention period, Owner/Operators shall notify the United States and the State at least ninety (90) days prior to the destruction of any such records or documents, and, upon request by the United States, Owner/Operators shall deliver any such records or documents to EPA. If the United States has not responded to Owner/Operator's notice prior to the time Owner/Operators intends to destroy the records or documents, Owner/Operators Management shall deliver all such records and

documents to EPA no earlier than ten (10) days after providing an additional written notice that such records and documents will be delivered, unless EPA provides otherwise after receiving such notice. Owner/Operators may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Owner/Operators assert such a privilege, they shall provide the Plaintiffs with the following: (1) the title of the document, record, or information; (2) the date of the document, record, or information; (3) the name and title of the author of the document, record, or information; (4) the name and title of each addressee and recipient; (5) a description of the subject of the document, record, or information; and (6) the privilege asserted by Owner/Operators. However, no documents, reports, or other information created or generated pursuant to the requirements of the Consent Decree shall be withheld on the grounds that they are privileged.

197. Each Owner/Operator hereby certifies individually that, to the best of its knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed, or otherwise disposed of any records, documents, or other information relating to its potential liability regarding the Site since notification of potential

liability by the United States or the State or the filing of suit against it regarding the Site and that it has fully complied with any and all EPA requests for information pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e); and Section 3007 of RCRA, 42 U.S.C. § 6927.

**XXVIII. NOTICES AND SUBMISSIONS**

198. Whenever, under the terms of this Consent Decree, written notice is required to be given or a report or other document is required to be sent by one Party to another, it shall be directed to the individuals at the addresses specified below, unless those individuals or their successors give notice of a change to the other Parties in writing. All notices and submissions shall be considered effective upon receipt, unless otherwise provided. Written notice as specified herein shall constitute complete satisfaction of any written notice requirement of the Consent Decree with respect to the United States, EPA, the State, and the Owner/Operators, respectively.

**As to the United States:**

Chief, Environmental Enforcement Section  
Environment and Natural Resources Division  
U.S. Department of Justice  
P.O. Box 7611  
Ben Franklin Station  
Washington, D.C. 20044  
Re: DOJ #90-11-2-656A



and

As to the United States and EPA:

Thomas Cinti  
Assistant Regional Counsel (3RC42)  
United States Environmental Protection Agency  
Region III  
1650 Arch Street  
Philadelphia, PA 19103

As to EPA:

Kelley Chase [3HS21]  
EPA Project Coordinator  
United States Environmental Protection Agency  
Region III  
1650 Arch Street  
Philadelphia, PA 19103

As to the State:

Richard Morgan  
State Project Coordinator  
PADEP  
909 Elmerton Avenue  
2<sup>nd</sup> Floor  
Environmental Cleanup Programs  
Harrisburg, PA 17110

As to the Owner/Operators:

Stephen T. Joyce	General Counsel
4 Liberty Lane	Waste Management
Hampton, NH 03842	Suite 4000
	1001 Fannin Street
	Houston, Texas 77002

and

Robert Fox  
Manko, Gold & Katcher, LLP  
401 City Avenue  
Bala Cynwyd, PA 19004

Wm. Roger Truitt  
Piper Marbury Rudnick & Wolfe, LLP  
6225 Smith Avenue

6225 Smith Avenue  
Baltimore, MD 21209

**XXIX. EFFECTIVE DATE**

199. The effective date of this Consent Decree shall be the date upon which this Consent Decree is entered by the Clerk of the Court, except as otherwise provided herein.

**XXX. RETENTION OF JURISDICTION**

200. This Court retains jurisdiction over both the subject matter of this Consent Decree and the Owner/Operators for the duration of the performance of the terms and provisions of this Consent Decree for the purpose of enabling any of the Parties to apply to the Court at any time for such further order, direction, and relief as may be necessary or appropriate for the construction or modification of this Consent Decree, or to effectuate or enforce compliance with its terms, or to resolve disputes in accordance with Section XXI (Dispute Resolution) hereof.

**XXXI. APPENDICES**

201. The following appendices are attached to and incorporated into this Consent Decree:

"Appendix A" is the OUI ROD.

"Appendix B" is the draft easement in Section X, Paragraphs 84(c) and 85(c).

#### XXXII. COMMUNITY RELATIONS

202. Owner/Operators shall propose to EPA and the State their participation in the community relations plan to be developed by EPA. EPA will determine the appropriate role for the Owner/Operators under the Plan. Owner/Operators shall also cooperate with EPA and the State in providing information regarding the Source Control Work to the public. As requested by EPA or the State, Owner/Operators shall participate in the preparation of such information for dissemination to the public and in public meetings which may be held or sponsored by EPA or the State to explain activities at or relating to the Site.

#### XXXIII. MODIFICATION

203. Schedules specified in this Consent Decree, including those set forth in Section XI (Reporting Requirements) for completion of the Source Control Work may be modified by agreement of the EPA Project Coordinator and the Owner/Operators. All such modifications shall be made in writing. In the event of a move, the party will provide written notice to the Parties identified in Section XXVIII of changes to addresses and telephone numbers.

204. Except as otherwise provided in this Paragraph and Paragraph 203, no modifications shall be made to

provisions of this Consent Decree without written notification to and written approval of the United States, Owner/Operators, the Related Keystone Parties, and the Court. Prior to providing its approval to any modification to the provisions of this Consent Decree, the United States will provide the State with a reasonable opportunity to review and comment on the proposed modification. Modifications to the Source Control Remedial Action Work Plan, and any other plan approved by EPA under this Consent Decree that do not materially alter the requirements of those documents may be made by written agreement between the EPA Project Coordinator, after providing the State with a reasonable opportunity to review and comment on the proposed modification, and the Owner/Operators. Modifications to the Source Control Remedial Action made pursuant to Paragraphs 55 (Modification of the Landfill Cap Remedy and Operation and Maintenance) and Paragraphs 69 (Modification of ELGE Remedy and Operation and Maintenance) may be made by EPA. Nothing in this Decree shall be deemed to alter the Court's power to enforce, supervise, or approve modifications to this Consent Decree.

**XXXIV. LODGING AND OPPORTUNITY FOR PUBLIC COMMENT**

205. This Consent Decree shall be lodged with the Court for a period of not less than thirty (30) days for public notice and comment in accordance with Section 122(d)(2) of CERCLA, 42 U.S.C. § 9622(d)(2); and 28 C.F.R. § 50.7. The United States reserves the right to withdraw or withhold its consent if the comments regarding the Consent Decree disclose facts or considerations which indicate that the Consent Decree is inappropriate, improper, or inadequate. The Owner/Operators and the Related Keystone Parties consent to the entry of this Consent Decree without further notice.

206. If for any reason the Court should decline to approve this Consent Decree in the form presented, this agreement is voidable at the sole discretion of any Party and the terms of the agreement may not be used as evidence in any litigation between the Parties.

**XXXV. SIGNATORIES/SERVICE**

207. Each undersigned representative of an Owner/Operator and a Related Keystone Party to this Consent Decree and the Assistant Attorney General for the Environment and Natural Resources Division of the Department of Justice certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and

legally bind such Party to this document.

208. Each Owner/Operator and Related Keystone Party hereby agrees not to oppose entry of this Consent Decree by this Court or to challenge any provision of this Consent Decree unless the United States has notified the Owner/Operators and Related Keystone Parties in writing that it no longer supports entry of the Consent Decree.

209. Each Owner/Operator and Related Keystone Party shall identify, on the attached signature page, the name, address, and telephone number of an agent who is authorized to accept service of process by mail on behalf of that Party with respect to all matters arising under or relating to this Consent Decree. Owner/Operators and Related Keystone Parties hereby agree to accept service in that manner and to waive the formal service requirements set forth in Rule 4 of the Federal Rules of Civil Procedure and any applicable local rules of this Court, including, but not limited to, service of a summons.

SO ORDERED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 1999.

\_\_\_\_\_  
United States District Judge

THE UNDERSIGNED PARTIES enter into this Consent Decree in the matter of United States v. Keystone Sanitation Company relating to the Keystone Sanitation Landfill Superfund Site.

FOR THE UNITED STATES OF AMERICA

Date: 8/10/90

L. J. Schiffer  
LOIS J. SCHIFFER  
Assistant Attorney General  
Environment and Natural Resources  
Division  
U.S. Department of Justice  
Washington, D.C. 20530

Date: \_\_\_\_\_

Nancy Flickinger  
NANCY FLICKINGER  
Senior Attorney  
Environmental Enforcement Section  
Environment and Natural Resources  
Division  
U.S. Department of Justice  
Washington, D.C. 20530

\_\_\_\_\_  
DAVID BARASCH  
United States Attorney  
Middle District of Pennsylvania



Date: \_\_\_\_\_

ANNE FIORENZA  
Assistant United States Attorney  
Middle District of Pennsylvania

Date: August 17, 2000

Bradley M. Campbell  
Bradley M. Campbell  
Regional Administrator  
U.S. Environmental Protection  
Agency - Region III  
1650 Arch Street  
Philadelphia, PA 19103

Date: 8/15/00

William C. Early  
WILLIAM C. EARLY  
Regional Counsel  
U.S. Environmental Protection  
Agency - Region III  
1650 Arch Street  
Philadelphia, PA 19103

Date: 8/11/08

Thomas A. Cinti  
THOMAS A. CINTI  
Senior Assistant Regional Counsel  
U.S. Environmental Protection  
Agency - Region III  
1650 Arch Street  
Philadelphia, PA 19103

FOR THE COMMONWEALTH OF  
PENNSYLVANIA, DEPARTMENT OF  
ENVIRONMENTAL PROTECTION

Date: 7/13/00

James Flesher  
James Flesher  
Regional Environmental Cleanup  
Program Manager  
Southcentral Regional Office  
Pennsylvania Department of  
Environmental Protection


Date: 7/13/00

Beth Liss Shuman  
Beth Liss Shuman  
Assistant Counsel  
Southcentral Regional Office  
Pennsylvania Department of  
Environmental Protection

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States v. Keystone Sanitation Company, relating to the Keystone Sanitation Landfill Superfund Site.

FOR Waste Management of Pennsylvania, Inc.

Date: September 11, 2000

  
Stephen T. Joyce  
Area Director-Closed Sites  
4 Liberty Lane West  
Hampton, NH 03842

Agent Authorized to Accept Service on Behalf of Above-Signed Party:

Company: Waste Management, Inc.  
Attn: V.P. & Assistant General Counsel  
Regulatory/HSE  
Address: 1001 Fannin, Suite 4000  
Houston, TX 77002  
Phone Number: 713-512-6369  
Fax Number: 713-209-9711

with copy to:

Name: Stephen T. Joyce  
Company: Waste Management, Inc.  
Address: 4 Liberty Lane West  
Hampton, NH 03842  
Phone Number: 603-929-3490  
Fax Number: 603-929-3152

and,

Name: Robert Fox, Esq.  
Company: Manko, Gold & Katcher  
Address: 401 City Avenue, Suite 500  
Bala Cynwvd, PA 19004  
Phone Number: 610-660-5700  
Fax Number: 610-660-5711

A separate signature page must be signed by each corporation, individual or other legal entity that is settling with the United States.

THE UNDERSIGNED PARTY enters into this Consent Decree in the  
matter of United States v. Keystone Sanitation Company,  
relating  
to the Keystone Sanitation Landfill Superfund Site.

FOR \_\_\_\_\_ COMPANY, INC. \*/

Date: \_\_\_\_\_

\_\_\_\_\_  
[Name -- Please Type]  
[Title -- Please Type]  
[Address -- Please Type]

Agent Authorized to Accept Service on Behalf of Above-  
signed Party:

Name: \_\_\_\_\_ [Please Type]  
Title: \_\_\_\_\_  
Address: \_\_\_\_\_  
Tel. Number: \_\_\_\_\_

\_\_\_\_\_  
\*/ A separate signature page must be signed by each  
corporation, individual or other legal entity that is  
settling with the United States.50

FOR THE COMMONWEALTH OF  
PENNSYLVANIA

Date: \_\_\_\_\_

\_\_\_\_\_  
James Flesher  
Regional Environmental Cleanup  
Program Manager  
Southcentral Regional Office  
Pennsylvania Department of  
Environmental Protection

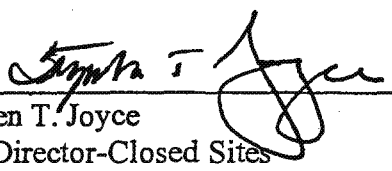
Date: \_\_\_\_\_

\_\_\_\_\_  
Beth Liss Shuman  
Assistant Counsel  
Southcentral Regional Office  
Pennsylvania Department of  
Environmental Protection

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States v. Keystone Sanitation Company, relating to the Keystone Sanitation Landfill Superfund Site.

FOR Waste Management of Maryland, Inc.

Date: September 11, 2000

  
\_\_\_\_\_  
Stephen T. Joyce  
Area Director-Closed Sites  
4 Liberty Lane West  
Hampton, NH 03842

Agent Authorized to Accept Service on Behalf of Above-Signed Party:

Company: Waste Management, Inc.  
Attn: V.P. & Assistant General Counsel  
Regulatory/HSE  
Address: 1001 Fannin, Suite 4000  
Houston, TX 77002  
Phone Number: 713-512-6369  
Fax Number: 713-209-9711

with copy to:

Name: Stephen T. Joyce  
Company: Waste Management, Inc.  
Address: 4 Liberty Lane West  
Hampton, NH 03842  
Phone Number: 603-929-3490  
Fax Number: 603-929-3152

and,

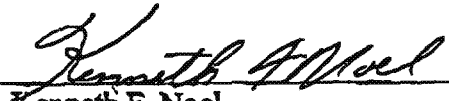
Name: Robert Fox, Esq.  
Company: Manko, Gold & Katcher  
Address: 401 City Avenue, Suite 500  
Bala Cynwyd, PA 19004  
Phone Number: 610-660-5700  
Fax Number: 610-660-5711

A separate signature page must be signed by each corporation, individual or other legal entity that is settling with the United States.

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States v.  
Keystone Sanitation Company, relating to the Keystone Sanitation Landfill Superfund Site.

FOR KEYSTONE SANITATION COMPANY, INC.

Date: 9/27/00

  
Kenneth F. Noel  
President  
355 Clouser Road  
Hanover, PA 17331

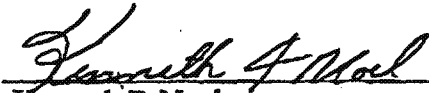
Agent Authorized to Accept Service on Behalf of Above-signed Party:

Name: Wm. Roger Truitt, Esquire  
Title: Attorney  
Address: Piper Marbury Rudnick & Wolfe LLP  
6225 Smith Avenue  
Baltimore, MD 21209-3600  
(410) 580-4277

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States v.  
Keystone Sanitation Company, relating to the Keystone Sanitation Landfill Superfund Site.

FOR RELATED KEYSTONE PARTY  
FLATBUSH GOLF COURSE, INC.

Date: 9/27/00

  
Kenneth F. Noel  
President  
940 Littlestown Road  
Littlestown, PA 17340

Agent Authorized to Accept Service on Behalf of Above-signed Party:

Name: Wm. Roger Truitt, Esquire  
Title: Attorney  
Address: Piper Marbury Rudnick & Wolfe LLP  
6225 Smith Avenue  
Baltimore, MD 21209-3600  
(410) 580-4277



THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States v.  
Keystone Sanitation Company, relating to the Keystone Sanitation Landfill Superfund Site.

FOR KEYSTONE DEFENDANT  
KENNETH F. NOEL

Date: 9/27/00

*Kenneth F. Noel*  
355 Clouser Road  
Hanover, PA 17331

Agent Authorized to Accept Service on Behalf of Above-signed Party:

Name: Wm. Roger Truitt, Esquire  
Title: Attorney  
Address: Piper Marbury Rudnick & Wolfe LLP  
6225 Smith Avenue  
Baltimore, MD 21209-3600  
(410) 580-4277

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States v.  
Keystone Sanitation Company, relating to the Keystone Sanitation Landfill Superfund Site.

FOR KEYSTONE DEFENDANT  
ANNA M. NOEL

Date: 9-27-00

Anna M. Noel  
355 Clouser Road  
Hanover, PA 17331


Agent Authorized to Accept Service on Behalf of Above-signed Party:

Name: Wm. Roger Truitt, Esquire  
Title: Attorney  
Address: Piper Marbury Rudnick & Wolfe LLP  
6225 Smith Avenue  
Baltimore, MD 21209-3600  
(410) 580-4277

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States v.  
Keystone Sanitation Company, relating to the Keystone Sanitation Landfill Superfund Site.

FOR RELATED KEYSTONE PARTY  
LISA A. NOEL

Date: 9/27/00

  
\_\_\_\_\_  
25 Ashfield Drive  
Littlestown, PA 17340-9526

Agent Authorized to Accept Service on Behalf of Above-signed Party:

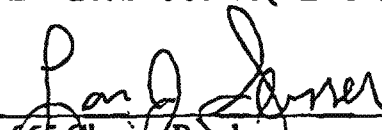
Name: Wm. Roger Truitt, Esquire  
Title: Attorney  
Address: Piper Marbury Rudnick & Wolfe LLP  
6225 Smith Avenue  
Baltimore, MD 21209-3600  
(410) 580-4277

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States v.  
Keystone Sanitation Company, relating to the Keystone Sanitation Landfill Superfund Site.

FOR RELATED KEYSTONE PARTY  
LORI J. SLUSSER (NEE NOEL)

Date:

Sept 27, 2000



365 Clouser Road  
Hanover, PA 17331

Agent Authorized to Accept Service on Behalf of Above-signed Party:

Name: Wm. Roger Truitt, Esquire  
Title: Attorney  
Address: Piper Marbury Rudnick & Wolfe LLP  
6225 Smith Avenue  
Baltimore, MD 21209-3600  
(410) 580-4277

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States v.  
Keystone Sanitation Company, relating to the Keystone Sanitation Landfill Superfund Site.

FOR RELATED KEYSTONE PARTY  
BRIAN K. NOEL

Date: 9/22/00

Brian K. Noel  
250 Clouser Road  
Hanover, PA 17331-9027

Agent Authorized to Accept Service on Behalf of Above-signed Party:

Name: Wm. Roger Truitt, Esquire  
Title: Attorney  
Address: Piper Marbury Rudnick & Wolfe LLP  
6225 Smith Avenue  
Baltimore, MD 21209-3600  
(410) 580-4277

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States v.

Keystone Sanitation Company, relating to the Keystone Sanitation Landfill Superfund Site.

FOR RELATED KEYSTONE PARTY  
BART F. NOEL

Date:

9/22/00

Bart F Noel

475 Basehoar School Road  
Littlestown, PA 17340

Agent Authorized to Accept Service on Behalf of Above-signed Party:

Name: Wm. Roger Truitt, Esquire  
Title: Attorney  
Address: Piper Marbury Rudnick & Wolfe LLP  
6225 Smith Avenue  
Baltimore, MD 21209-3600  
(410) 580-4277

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States v.  
Keystone Sanitation Company, relating to the Keystone Sanitation Landfill Superfund Site.

FOR RELATED KEYSTONE PARTIES  
NOEL FAMILY TRUST  
BART F. NOEL SEPARATE TRUST  
BRIAN K. NOEL SEPARATE TRUST  
LISA A. NOEL SEPARATE TRUST  
LORI J. NOEL SEPARATE TRUST

Date: Sept 27, 2000

Mary E Keller

Mary E. Keller

Trustee

424 Granite Station Road

Gettysburg, PA 17325

Agent Authorized to Accept Service on Behalf of Above-signed Party:

Name: Wm. Roger Truitt, Esquire  
Title: Attorney  
Address: Piper Marbury Rudnick & Wolfe LLP  
6225 Smith Avenue  
Baltimore, MD 21209-3600  
(410) 580-4277

## RECORD OF DECISION

### DECLARATION

#### Site Name and Location

Keystone Sanitation Landfill Site  
Adams County, Union Township, Pennsylvania  
Operable Unit One

#### Statement of Basis and Purpose

This decision document presents the selected remedial action for the Keystone Sanitation Landfill Site (Site) in Adams County, Union Township, Pennsylvania. It was developed in accordance with the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended, 42 U.S.C. Section 9601 et seq. and is consistent, to the extent practicable, with the National Oil and Hazardous Substances Contingency Plan (NCP), 40 C.F.R. Part 300. 55 Fed. Reg. 8666 (March 8, 1990). This decision is based on the contents of the Administrative Record for the Site.

The Commonwealth of Pennsylvania concur with the Selected Remedy.

#### Assessment of the Site

Pursuant to duly delegated authority, I hereby determine, pursuant to Section 106 of CERCLA 42 U.S.C. § 9606 that actual or threatened releases of hazardous substances from this Site, as discussed in the Summary of Site Risks on pages 18 through 30, if not addressed by implementing the response action selected in this ROD, may present an imminent and substantial endangerment to public health, welfare or the environment.

#### Description of the Remedy

The Selected Remedy addresses the principal threat posed by the Site from the ingestion of groundwater by reducing the risks to human health and environment through the use of groundwater extraction and treatment and the installation of an impermeable cap. It does not provide treatment of the waste as it has been found to be impracticable. This remedy will prevent continued infiltration from the wastes to the groundwater and ~~prevent~~ <sup>prevent</sup> the 3

EPA 036424



found not to be practicable as a principal element of the remedy since the size of the landfill and the nonhomogeneity of the wastes preclude a remedy in which the contaminants could be treated in a cost-effective manner.

Because this remedy will result in hazardous substances remaining on-site above health-based levels, a review shall be conducted as required by Section 121(c) of CERCLA 42 U.S.C. § 9621(c), within five years after commencement of the remedial action, and every five years thereafter as required, to ensure that the remedy continues to provide adequate protection of human health and the environment.



Edwin B. Erickson  
Regional Administrator  
Region III

9/30/90  
Date

AR304755

EPA 036426

KEYSTONE SANITATION COMPANY SITE

List of Tables

Tables	Page
1. Contaminants in the Soil	13
2. Contaminants in the Surface Water and Sediments	14
3. Contaminants in the Groundwater	15
4. Cancer Potency Factors	23
5. References Doses	24
6. Lifetime Excess Cancer Risk by Environmental & Exposures Routes	25
7. Noncarcinogenic Risks by Exposure Routes	26
8. Noncarcinogenic Risks by Environmental Media	27
9. Estimated Costs for Five Alternatives	42
10. Costs of Selected Remedy	48

AR304757

EPA 036428

## RECORD OF DECISION

### KEYSTONE SANITATION LANDFILL SITE

#### Decision Summary

##### SITE NAME, LOCATION AND DESCRIPTION

The Keystone Sanitation Landfill Site (Keystone Site or Site) is an inactive privately owned facility (Keystone Sanitation Company or Keystone), permitted by Pennsylvania Department of Environmental Resources (PADER) to receive household and municipal wastes and certain types of industrial and construction debris. The landfill is located on a 40 acre tract of land in Union Township, Adams County, Pennsylvania, southwest of Hanover, Pennsylvania and is approximately 800 feet north of the Pennsylvania (PA)-Maryland (MD) border. (See Figure 1 for Site location). It is fenced on the eastern and western sides and bounded by Line Road to the south and Clouser Road to the northwest.

The landfill which operated from 1966 to April 1990 is situated on top of a ridge. It is built in a horse-shoe shape with the owner of the landfill residing in a home on the inside edge of the landfill property. There are approximately 36 residents within a 1-mile radius of the Keystone Site and approximately 700 residents within a 3-mile radius of the Site. Littlestown, Pennsylvania is the closest town to the Site. It has a population of approximately 3,000 and is located 3 miles north of the Site. Some residences are located near the landfill, but the predominant land use is agricultural, not residential. Residents in the area of the Site utilize domestic wells to obtain their water supply.

The topography of the area consists of gently rolling hills and valleys formed by the northeasterly trending elongated valleys and ridges. Most surface water flows northward to an unnamed perennial tributary of Conewago Creek located 100 feet north of the Keystone site. A smaller quantity of runoff flows southward into an unnamed tributary to Piney Creek, located about 2000 feet south of the Site in the State of Maryland.

The landfill was constructed as a renovating base landfill without a liner or leachate treatment or collection system. Depth of wastes average 30 feet. Fractured bedrock of the Marburg Schists underlies the Site overlain by varying thicknesses of silty clay soil which was used for constructing the base of each cell and for daily, intermediate and final cover. Its maximum elevation is approximately 700 feet with a vertical relief of approximately 100 feet within a 2000 foot radius of the Site. A perennial grass cap is growing over the Site with the exception of the two newly closed cells.

AR304759

EPA 036430

## SITE HISTORY

Since 1966 (pre-dating the establishment of PADER in 1970), the Keystone Site has been used as a sanitary landfill. It is estimated that 300 to 376 tons per day of waste have been disposed at the site. In 1974, five monitoring wells (K1, K2, K3, K4, and K5) were installed by Keystone at the landfill perimeter to monitor groundwater quality.

In 1982, all facilities permitted by PADER were required to monitor groundwater for volatile organic compounds (VOCs). A sample taken by PADER in November 1982 from Keystone monitoring well K1 revealed VOC contamination in the groundwater. Subsequent testing of the onsite residential well and the nearby Mundorf Spring revealed that they also contained VOCs.

In April 1984, an EPA Field Investigation Team (FIT) performed a site investigation in response to citizen complaints of illegal dumping and groundwater contamination and to assess the Site's eligibility for inclusion on the EPA National Priorities List (NPL) established pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605. Sample results from the PADER and EPA FIT investigations confirmed that some residential wells contained low levels of VOC contamination.

In August 1984, as result of the VOC contamination, Keystone installed a spray irrigation system in the most contaminated area to prevent the migration of contaminants offsite and to remove VOCs from the groundwater. Water from Keystone monitoring well K1 was pumped to a series of sprayers located at the edge of the landfill, within the radius of influence of the well. In addition, a leachate collection system was installed on the south side of the landfill along Line Road. The leachate collection system consists of two perforated pipes and a storage tank. The storage tank is pumped periodically and the leachate disposed of offsite.

In the spring of 1985, the State of Maryland installed a series of monitoring wells at the Maryland border to monitor potential contaminant migration into Maryland. Low levels of VOC contamination have been consistently detected in Maryland well No.2 (MD2). However, no Maryland residential wells have been determined to be contaminated as a result of the landfill.

The Keystone Site was placed on the NPL in July 1987. In July 1987, the Potentially Responsible Parties (PRPs) were asked to perform the Remedial Investigation (RI) and Feasibility Study (FS) for the site. Negotiations failed to obtain cooperation from the PRPs to do the RI/FS and EPA assigned the RI/FS tasks to REM V, a federal government contractor.

AR304761

### HIGHLIGHTS OF COMMUNITY PARTICIPATION

Community involvement at this Site is very high with a mailing list of over 600 people. There are at least four organized citizen groups, two townships, two borough, and two State (MD and PA) and 1 County environmental agencies concerned about the public health and environmental effects of the landfill. These parties have rigorously interacted with the EPA and the State governments.

In accordance with Sections 113(k)(2)(B)(i-v) and 117(a)(2) of CERCLA, the public was kept informed and given an opportunity to participate in the Keystone Site activities. A public meeting was held on March 29, 1988 to discuss the workplan for the RI/FS. Numerous comments received on the RI/FS workplan were considered in the revisions to the Workplan. Several visits and numerous phone calls have been made to the community to keep them informed. In addition, two Fact Sheets on the RI/FS activities and the Proposed Plan have been distributed to the people on the mailing list.

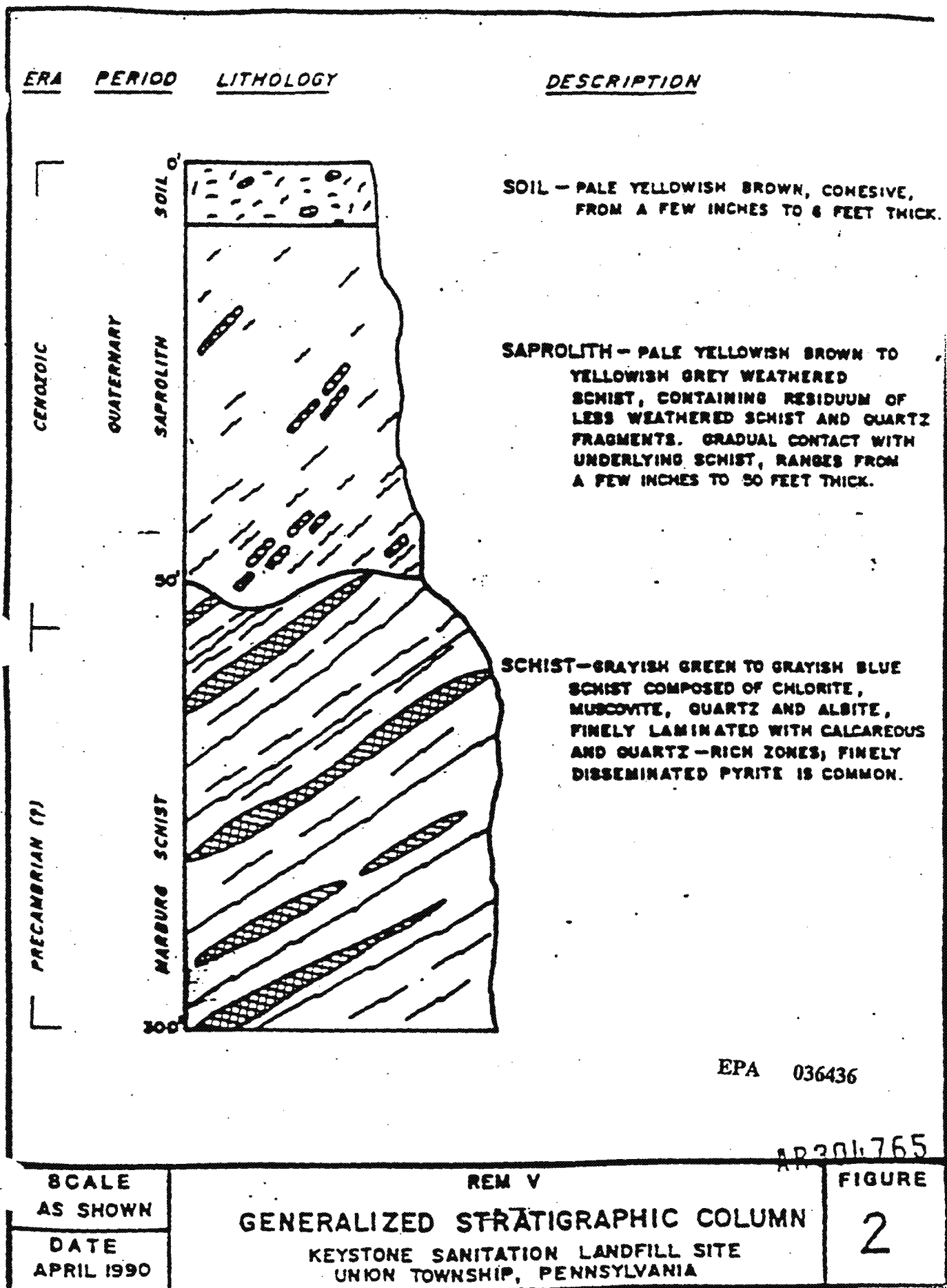
On July 20, 1990, the Proposed Plan and the RI/FS were placed for public viewing in the four information repositories: The Adams County Public Library; the Hanover Public Library; the Carroll County Public Library and the St. Mary's United Church of Christ. The notice of availability was placed in the Gettysburg Times and the Hanover Evening Sun on July 20, 1990. A public comment period was originally to be held from July 20, 1990 to August 20, 1990. This comment period was extended to September 20, 1990 at the request of the public. The originally scheduled public meeting for August 15, 1990 was rescheduled and held on September 13, 1990. This rescheduling was requested by the public to allow them time to review the information and prepare comments for the meeting.

### SCOPE AND ROLE OF RESPONSE ACTION

The scope and role of the response action is to prevent current and future exposure to the contaminated soils, to reduce contaminant migration into the groundwater and to prevent migration of the contaminated groundwater to uncontaminated areas. This response action addresses the principal threat at the Site from groundwater contamination through an impermeable cap and groundwater extraction and treatment. A second Operable Unit will address the offsite contamination concerns.

### SUMMARY OF SITE CHARACTERISTICS

The Keystone Site located in the upland section of the western Piedmont Physiographic Province is bounded on the east by the Coastal Plain Province and on the west by the Blue Ridge Province.



SCALE  
AS SHOWN

DATE  
APRIL 1990

REM V

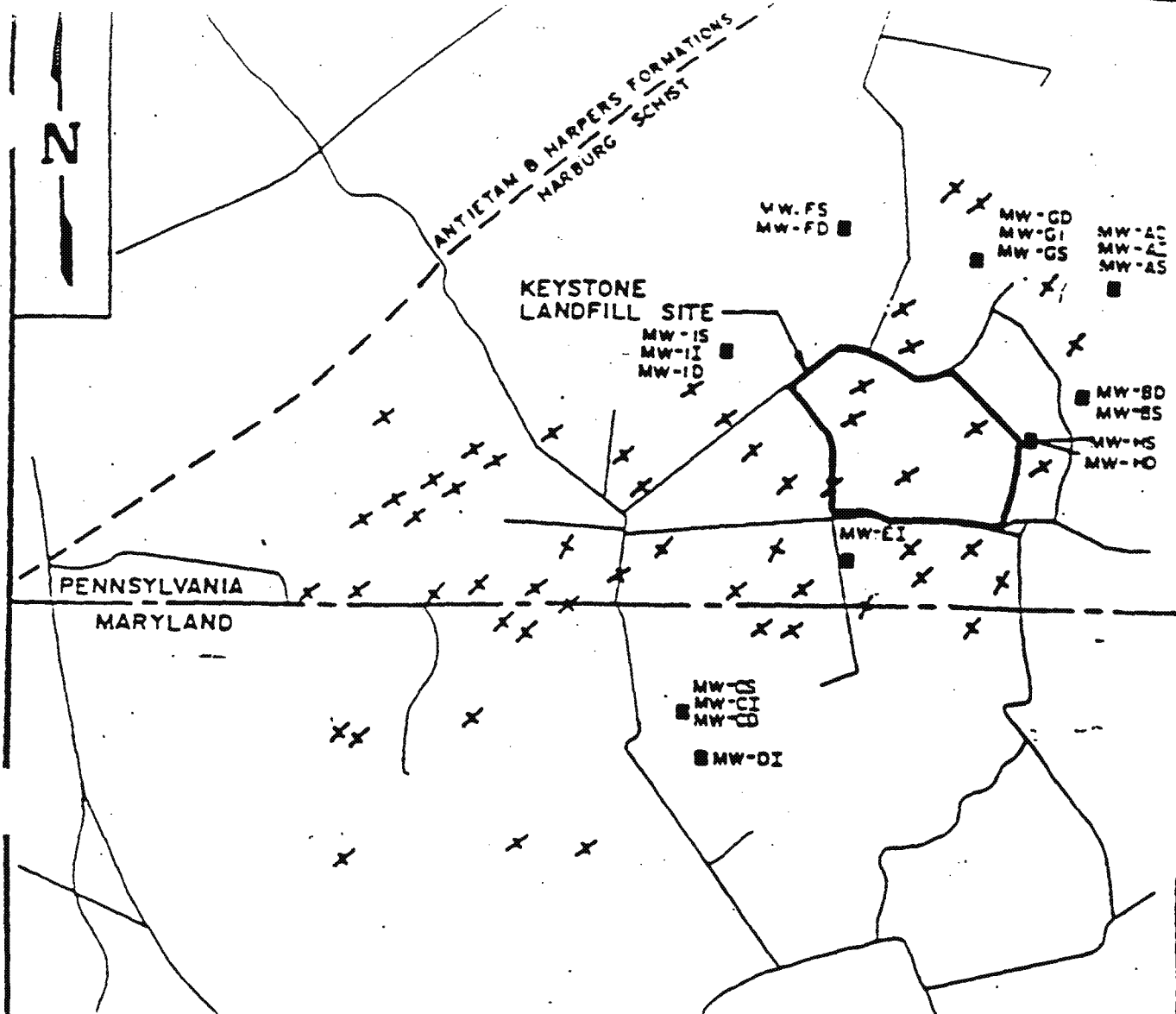
## GENERALIZED STRATIGRAPHIC COLUMN

KEYSTONE SANITATION LANDFILL SITE  
UNION TOWNSHIP, PENNSYLVANIA

FIGURE

2

C.C. JOHNSON & MALHOTRA P.C.



SOURCE: BERG ET AL, 1980.

### LEGEND

- LITHOLOGIC CONTACT
- X X LINEATION ORIENTATION
- MONITOR WELL OR WELL CLUSTER

0 1000 2000 3000  
FEET

SCALE  
S SHOWN

DATE  
APRIL 1990

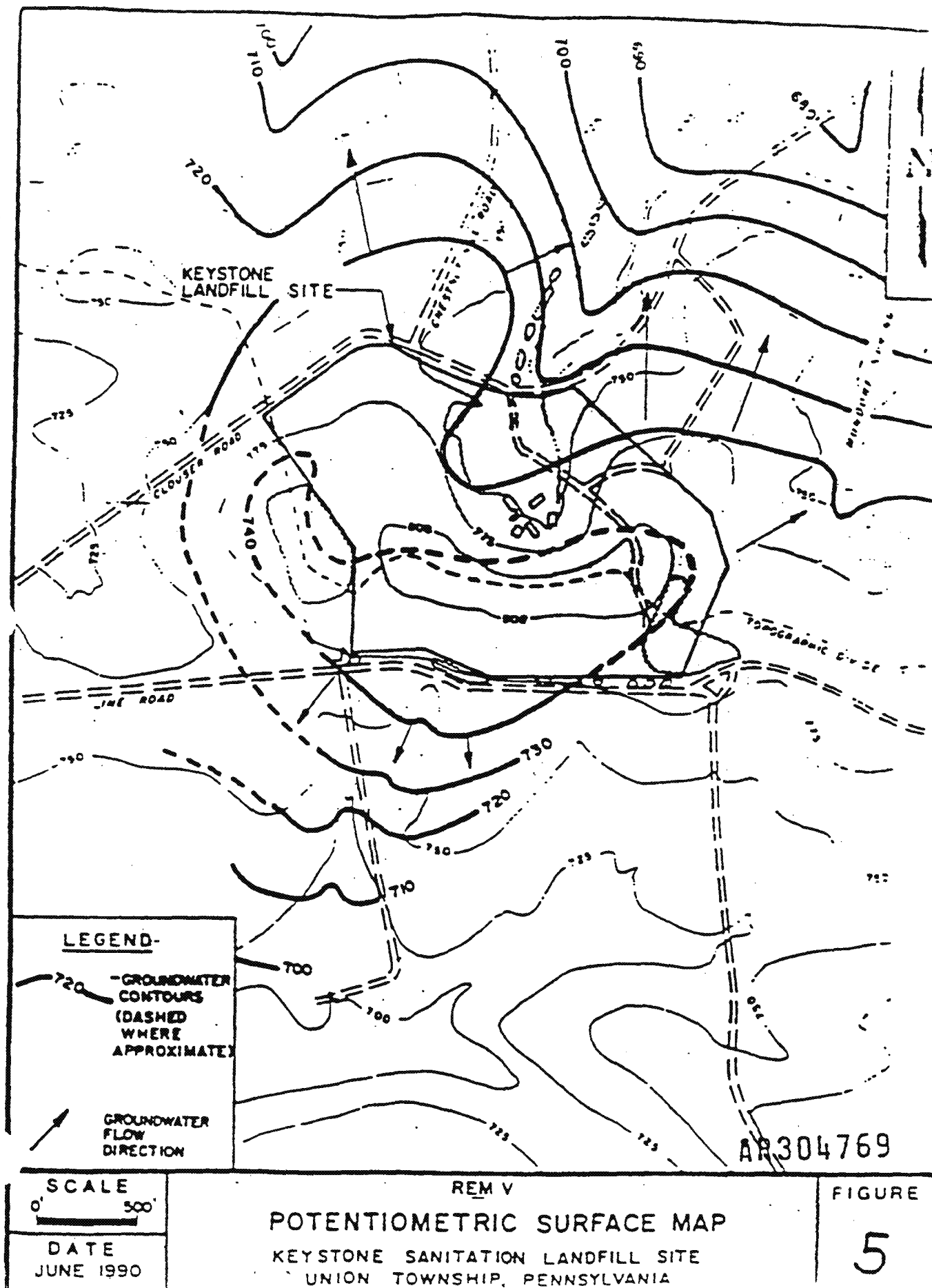
REM V  
LINEATIONS DUE TO SCHISTOSITY,  
STRUCTURE OR COMPOSITIONAL LAYERING  
KEYSTONE SANITATION LANDFILL SITE  
UNION TOWNSHIP, PENNSYLVANIA

AR304767E

4

C.C. JOHNSON & MALHOTRA, P.C.

EPA 036438





KEYSTONE SANITATION COMPANY SITE TABLE 1.  
Compounds/Analytes Detected in Soil Samples

Compounds/Analyte	Onsite Range of Concentration	Offsite Range of Concentration
-------------------	----------------------------------	-----------------------------------

Volatiles (VOCs)

1,1 Dichloroethane	2J	
1,2 Dichloroethene (total)	6J	
1,1,1 Trichloroethane	2J-9	
Tetrachloroethene	43	

BNAs/Pesticides

Naphthalate	19J	
Acenaphthene	33J	
Phenanthrene	19J-160J	17J-36J
Anthracene	14J-120J	
Fluoranthene	14J-200J	14J-63J
Benzo(a)anthracene	36J-190J	
Chrysene	20J-89J	19J-35J
Benzo(b)fluoranthene	23J-200J	22J-31J
Benzo(k)fluoranthene	13J-160J	
Benzo(a)pyrene	21J-180J	19J
Indeno(1,2,3-cd)pyrene	110J	
Dibenzo(a,h)anthracene	160J	
Benzo(g,h,i)perylene	100J	
Pentachlorophenol	73J	
Benzoic Acid	28J-240J	23J-130J
Dimethylphthalate	68J-88J	26J
Diethylphthalate	15J-160J	
Butylbenzylphthalate		35J
Di-n-octylphthalate	10J-140J	5J-28J
N-nitrosodiphenylamine	120J	
Heptachlor epoxide		2.3J-4.1J
Dieldrin	6.8J	2.2J-12J
4,4'DDE	12J-14J	
4,4'DDT		76
4-chloro-3-methyl phenol	96J	

Inorganics

Antimony	(6.0)-(6.3)L	8.7L
Arsenic	(0.6)-4.8L	(1.4)J-86L
Beryllium	(0.5)-1.5	(0.54)-1.6
Chromium	13.4-22.6	10.7-32.2
Copper	11.2J-43.3	8.3J-38.2J
Lead	9.2-80	5.1J-102J
Mercury	0.11-1.2	0.10-0.13
Nickel	(6.2)-29.3	(6.1)-29.1
Selenium	(0.81)J	(0.47)J
Silver		4.2
Zinc	32.5-106	23.7-149

AR304771

Range of Concentration of  
Compounds/Analytes Detected in the Monit

Compounds/Analyte	Onsite ug/l	Off
-------------------	----------------	-----

Volatiles(VOCs)

Vinyl Chloride	4J-40	
Chloroethane	3J-18J	
1,1 Dichloroethane	5-16	
1,1 Dichloroethane	4J-71	
1,2 Dichloroethane(Total)	6-140	
1,1,1 Trichloroethane	3J-52	
Trichloroethane	3J-57	
Carbon Disulfide	-	
Benzene	7J-14	
Tetrachloroethene	8-48	11-
Dichlorodifluoromethane	4J-48	

BNAs/Pesticides

Benzyl alcohol	-	
Benzoic Acid	3L	
Diethylphthalate	2J	
Bis(2ethylhexyl)phthalate	3J	
N-nitrosodiphenylamine	-	
Indeno(1,2,3cd)pyrene	-	
Dibenzo(a,h)anthracene	-	
Aldrin	-	0.02
4,4'DDT	-	0.04
Gamma Chlordane	-	

Inorganics

Arsenic	[1.2]-21.2L	[1.
Cadmium	-	
Chromium	[6.4]-658	[
Copper	[23.4]-1300J	[
Lead	[2.0]-13.7	[3
Mercury	0.2J-0.4J	
Nickel	[24.6]L-1040	[1
Selenium	-	[1.
Zinc	26.0J-98J	[2(

residual risks to the acceptable risk range of  $1E-04$  to  $1E-06$  excess cancer risk and less than 1 for the non-carcinogenic hazard index..

### Reduction of Toxicity, Mobility and Volume through Treatment

This criterion evaluates the performance of the alternatives to reduce the toxicity, mobility and volume of the waste by assessing the degree of irreversibility and the types and quantity of residuals remaining.

Alternatives 1 and 2 do not provide any reduction in toxicity, mobility and volume.

Alternative 3 would reduce the levels of contaminants in the groundwater and retard their mobility. However, it would have no effect on the soils, the wastes and the landfill gases.

Alternatives 4 and 5 reduce the toxicity of the groundwater to remedial cleanup goal in a irreversible process. The mobility would be limited through the extraction process. The volume would be lessened by the installation of the cap and the groundwater extraction and treatment. The gas collection system would also irreversibility reduce the volume of methane released from the Site.

None of the alternatives addresses the CERCLA statutory preference for treatment of the waste as it has been determined to be impracticable.

### Short-term Effectiveness

Short-term effectiveness evaluates the alternatives against the period of time needed to achieve protection of human health and the environment and any adverse impacts that may be posed during the construction and implementation period, until cleanup goals are achieved.

Alternatives 1 and 2 would impose the least short term impact to the community, remedial workers and the environment because no actions would be taken.

Alternative 3 would impose some minimal impact on the remedial workers and the environment through the installation of the extraction wells and treatment plant. Groundwater treatment would begin 3 to 4 months after plant construction begins.

Alternatives 4 and 5 would take the longest time to achieve protectiveness due to the estimated construction time for the cap of 8 months. In turn, it will also impose the largest amount of impact on the receptors through ground intrusive activities. It should be noted, however that the activities of Alternatives 4 and

The estimated present worth cost for 30 years of groundwater treatment and a multimedia cap contained in Alternative 5 is \$10,695,000. The Proposed Plan incorrectly stated the present worth cost as \$12,060,000.

#### COMPARATIVE ANALYSIS OF ALTERNATIVES

Pursuant to 40 C.F.R. Section 300.430 (e)(9)(iii), 55 Fed. Reg. 8849, an assessment of the individual alternatives against nine evaluation criteria specified in this regulation shall be made. These nine criteria have been categorized into three groups to weight their importance. The first group is threshold criteria of which each alternative must meet to be eligible for selection. The threshold criteria consists of overall protectiveness of human health and the environment and compliance with ARARs. The second group is the primary balancing criteria. This is used to evaluate the performance of each of the alternatives compared to the others. These criteria include long term effectiveness and permanence, reduction of toxicity, mobility and volume, short term effectiveness, implementability and cost. The third group is the modifying criteria which includes state and community acceptance that must be considered for the selection of the remedy.

The assessment of the five alternatives against the nine evaluation criteria and the description of each criterion are as follows:

##### Overall Protectiveness of Human Health and the Environment

The overall protectiveness criterion evaluates whether or not an alternative provides adequate protection to human health and the environment by eliminating, controlling or reducing the current and potential exposures to levels established as remediation goals.

Alternative 1 and 2 do not provide adequate protection to human health and the environment as they provide no remedial action or reduction of the risks.

Alternative 3 provides a degree of protection by using groundwater treatment. However, it does not provide a mitigative measure to prevent precipitation from infiltrating the wastes and causing continued groundwater contamination and generation of leachate.

Alternatives 4 and 5 have no discernable differences in overall protectiveness. The same degrees of protection of receptors would be provided by both alternatives. Alternatives 4 and 5 provide groundwater treatment that would be protective of the people utilizing it as drinking water. The treatment would also provide protection to the environment by lessening the groundwater discharge surface water. Alternatives 4 and 5 also include the placement of a cap over the landfill. This action will reduce the

cap, the exposure pathways for surface and subsurface soils, and buried wastes would be reduced.

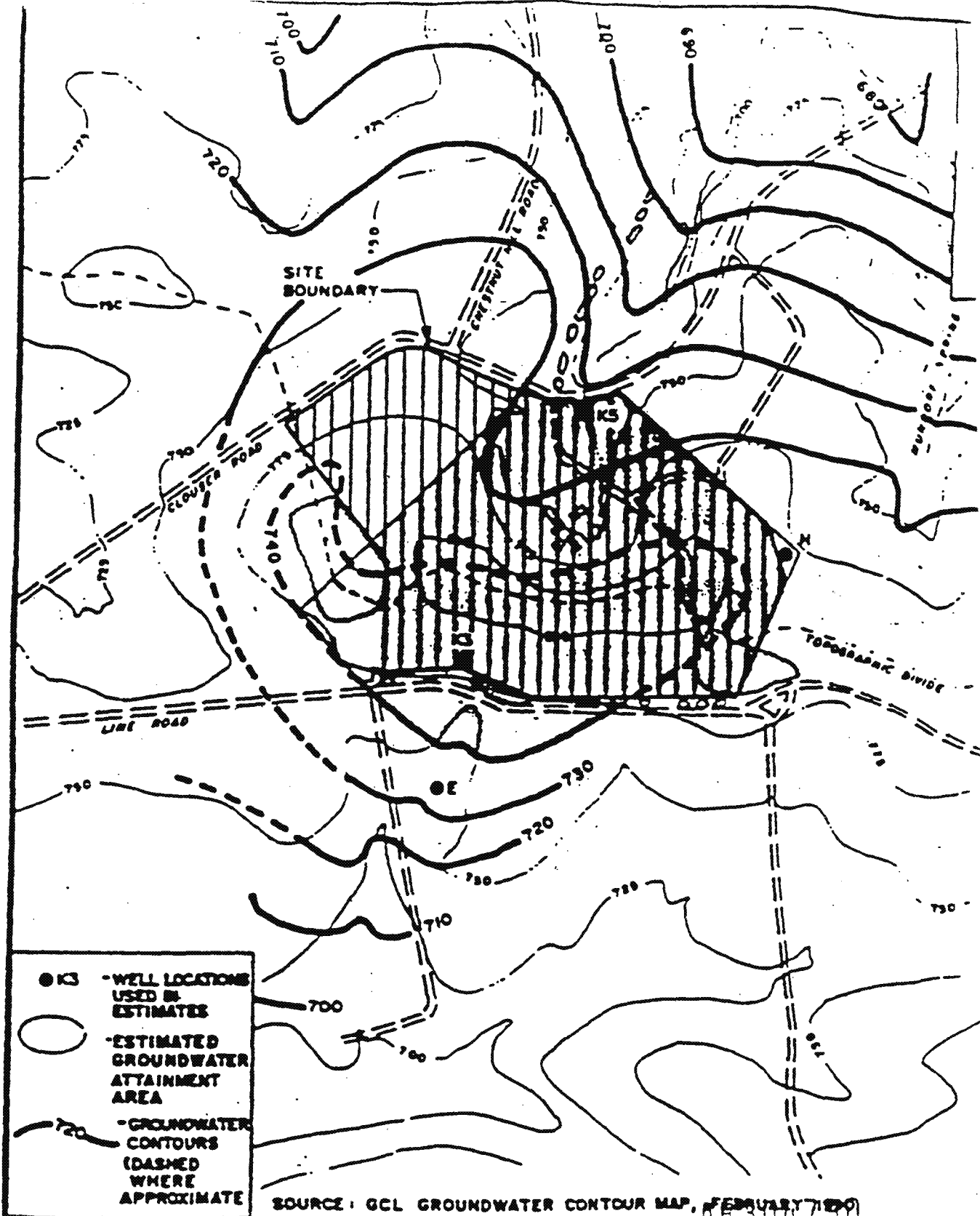
The impermeable cap would be designed to conform to the cover requirements of 25 PA Code §§ 273.234 pertaining to Municipal Landfill closure. The total area of the cap, including side slopes, would be approximately 40 acres and would cover a volume of 1.7 million cubic yards of wastes. The side slopes of the cap would range from 3 to 15 percent in order to conform with the existing contours and meet the requirements of 25 PA Code §§ 273.234. Depressions and erosion gullies on the landfill would be restored to grade with surrounding soil, as necessary. The top layer (and each layer beneath) of the cap would have a slope of at least 3 percent to enhance surface water runoff. The cap would require regrading to meet slope requirements and drainage ditches to collect and transfer runoff away from the landfill. Leachate generation will be reduced due to a reduction in precipitation infiltration. A vegetative cover would be placed on top.

An active gas extraction system designed to conform to the requirements of 25 PA Code §§ 273.292 would be installed between the existing landfill and the cap to prevent build up of methane gas. Gas collection wells installed to the depth of 20 feet and connected to a blower would collect the gas and send them to a gas burner. This will be further defined in the Remedial Design phase.

Any sludge produced from the unit processes would be disposed in an appropriate offsite disposal in compliance with 40 CFR 268.1-268.50.

A five year review would be conducted as wastes are being left onsite. The implementation time to install groundwater extraction wells and a treatment plant plus an impermeable cap would be 14 months.

Alternative 4 would comply with the Federal and State ARAR's for municipal landfill closure (25 PA Code §§273.234), air emissions (Clean Air Act (Part D) (42 USC §§7401-7642); OWSER Directive 9355.0-28; 25 PA Code §§127. et. seq.), surface water discharge (25 PA Code §§ 93.1 et. seq. ; 25 PA Code §§ 92.1 et. seq. ; 51 CFR 43665), residual sludges (40 CFR 268.1-268.50; 25 PA Code §§ 75.259-75.282; 25 PA Code §§75.21-75.38), and the "background quality" requirement for groundwater in 25 PA Code §§ 264.90-264.100 or the MCLs or Non-zero MCLs, whichever is lower. See "The Selected Remedy" for further discussion. The estimated present worth cost for Alternative 4 consisting of 30 years of groundwater treatment and an impermeable cap is \$9,156,950. The Proposed Plan incorrectly stated the present worth cost as \$11,215,000.



**SCALE**  
0' 300'

**DATE**  
JULY 1990

REM V  
**AREA OF ATTAINMENT**  
KEYSTONE SANITATION LANDFILL SITE  
LITTLESTOWN, PENNSYLVANIA

**FIGURE**  
7

EPA 036461

C.C. JOHNSON & MALHOTRA, P.C.

the environment, comply with applicable or relevant and appropriate requirements and be cost effective. It is also required that permanent solutions and alternative treatment technologies or resource recovery technologies be considered to the maximum extent practicable. This is to satisfy EPA's preference for treatment that reduces toxicity, mobility and volume of the Site related contaminants.

At the Keystone Site, certain technologies and process options were screened out due to the waste characteristics and Site conditions which made them technically and/or economically infeasible. The Keystone Site consists of approximately 1.7 million cubic yards of nonhomogeneous waste. Technologies such as biological treatment, solidification/stabilization, soil vapor extraction were not technically feasible for the nonhomogeneous waste content. Other technologies such as thermal treatment and offsite disposal were considered not economically feasible.

The Feasibility Study should be referred to for further discussion on the technical impracticability of treatment technologies to this Site.

Five alternatives were given final consideration. With the exception of the No Action alternative required by the NCP and the Limited Action alternative, these alternatives all consider groundwater extraction and treatment. Two of the alternatives also consider containment of the waste. Pursuant to CERCLA 121(c) 42 U.S.C. § 9621(c), all alternatives will include a review every five years as wastes are being left onsite.

In the following discussion of the alternatives, the costs are presented as present worth costs for a period of thirty years with a five percent discount. The present worth costs consist of construction and operation and maintenance (O&M). Comparison of the costs is included in Table 9.

#### Alternative 1 - No Action

Under the National Oil and Hazardous Substances Contingency Plan, 40 CFR § 300.430(e)(6) 55 Fed. Reg. 8849 (March 8, 1990), the no action alternative must be considered as a baseline action against which all other alternatives are compared. It provides no remedial action and no reduction of risk posed by the surficial soils and groundwater at the Keystone site. Because wastes are being left onsite, a five year effectiveness review would be required. The only costs associated with this alternative is the present worth cost for the five year review which is \$20,900. The no action alternative would not comply with the ARARs for the site.

#### Alternative 2 - Limited Action

The Limited Action alternative provides no remedial action and no reduction of the risks posed by surficial soil and groundwater at

The primary cancer risk comes from the ingestion of groundwater, and can be largely attributed to the presence of vinyl chloride detected at the value of 40 ug/l in well K-1 and a value of 4 ug/l at well HS. Both of these wells are onsite wells.

The results of the noncarcinogenic indices present a chronic Hazard Index for the Site of 4.862. This value exceeds the accepted value of one or less than one. The value of the HI is attributed to the presence of antimony, barium, manganese and chromium in the groundwater. These contaminants pose a threat to human health through either ingestion of the groundwater or inhalation of an aerosolized mist of groundwater.

In summary, both the Lifetime Excess Cancer Risks (5E-04) and the Hazard Index (4.862) exceeded EPA's accepted values of 1E-04 to 1E-06 and less than 1 respectively. As indicated by this, in its current condition, the Site presents an imminent and substantial endangerment to public health as set forth in Section 106 of CERCLA, 42 U.S.C. § 9606. Therefore, a remedial action is required to reduce the risks to human health.

#### Environmental Risks

An environmental risk assessment was conducted in the RI to assess the potential impacts to nonhuman receptors with the contaminants of concern at the Keystone Site. Potentially exposed populations (receptors) were identified and combined with information on exposure and toxicity on the contaminants of concern from the Site to derive the estimates of impact.

The potential receptors identified at the Site included terrestrial plants, terrestrial wildlife and aquatic life. For each of these receptors, exposure pathways were examined and are as follows:

##### Potential Receptors

Terrestrial Plants

Terrestrial Wildlife

Aquatic Life

##### Exposure Pathways

Uptake from surface soils

Ingestion of surface soils

Ingestion of food

Direct contact with water

Direct contact with sediments

Ingestion of sediments

Ingestion of food

For the terrestrial plant and wildlife, it was determined that the exposures to the contaminants of concern at the Site would not have a significant impact.

For the fish and aquatic invertebrates at the Site, surface water toxicity values were available from the Ambient Water Quality



**TOTAL CHRONIC NONCARCINOGENIC RISK BY EXPOSURE ROUTE (ADULTS)  
KEYSTONE SITE, PENNSYLVANIA**

TAB1

FILE: KEYBMT.MK1

DATE: 09/02/90

CUMULATIVE RISK BY EXPOSURE ROUTES - ADULT CHRONIC HAZARD INDEX

Chemical	Hazard Index - Chronic Adult (Dimensionless)				Percent Contribution to Hazard Index - Chronic Adult			
	Oral	Dermal	Inhalation	Combined Total	Oral	Dermal	Inhalation	Combined Total
Antimony	2.900	0.000	NA	2.900	99.68%	0.01%	NA	99.69%
Barium	0.377	0.000	0.019	0.396	7.74%	0.00%	0.38%	8.14%
Beryllium	0.007	0.000	NA	0.007	0.14%	0.00%	NA	0.14%
Cadmium	0.143	0.000	NA	0.143	2.98%	0.00%	NA	2.98%
Chromium	0.444	0.000	NA	0.444	9.33%	0.00%	NA	9.33%
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.131	0.000	NA	0.131	2.69%	0.00%	NA	2.69%
Lead	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.191	0.000	0.012	0.203	3.92%	0.00%	0.24%	4.18%
Mercury	0.029	0.000	NA	0.029	0.59%	0.00%	NA	0.59%
Nickel	0.281	0.000	NA	0.281	5.79%	0.00%	NA	5.79%
Selenium	0.025	0.000	NA	0.025	0.52%	0.00%	NA	0.52%
Silver	0.000	0.000	NA	0.000	0.00%	0.00%	NA	0.00%
Vanadium	0.083	0.000	NA	0.083	1.71%	0.00%	NA	1.71%
Zinc	0.040	0.000	NA	0.040	0.82%	0.00%	NA	0.82%
1,1,1-Trichloroethane	0.003	0.000	0.001	0.003	0.06%	0.00%	0.02%	0.07%
1,1-Dichloroethane	0.004	0.000	0.006	0.007	0.08%	0.00%	0.07%	0.15%
1,1-Dichloroethene	0.017	0.000	NA	0.017	0.34%	0.00%	NA	0.34%
1,2-Dichloroethane (Total)	0.020	0.000	NA	0.020	0.42%	0.00%	NA	0.42%
2-Methanone	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	0.002	0.000	0.004	0.006	0.04%	0.00%	0.09%	0.12%
Acetone	0.003	0.000	NA	0.003	0.10%	0.00%	NA	0.10%
Benzene	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	0.001	0.000	NA	0.001	0.03%	0.00%	NA	0.03%
Chloroethane	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoroethane	0.001	0.000	0.004	0.004	0.02%	0.00%	0.09%	0.11%
Methylene Chloride	0.000	0.000	0.000	0.000	NA	0.00%	NA	0.00%
Tetrachloroethane	0.027	0.000	NA	0.027	0.54%	0.00%	NA	0.54%
Trichloroethane	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	0.002	0.001	NA	0.004	0.05%	0.03%	NA	0.08%
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic Acid	0.000	0.000	NA	0.000	0.00%	0.00%	NA	0.00%
Benzo(a)Pyrene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)Perylene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)Phthalate	0.007	0.004	NA	0.012	0.15%	0.09%	NA	0.24%
Butylbenzylphthalate	0.000	0.000	NA	0.000	0.00%	0.00%	NA	0.00%
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)Anthracene	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	0.000	0.000	NA	0.000	0.00%	0.00%	NA	0.00%
Dimethyl Phthalate	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	0.002	0.001	NA	0.003	0.04%	0.02%	NA	0.06%
Di-n-Octyl Phthalate	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)Pyrene	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	0.006	0.000	NA	0.006	0.11%	0.00%	NA	0.11%
Aldrin	0.003	0.000	NA	0.003	0.72%	0.00%	NA	0.72%
Dieldrin	0.000	0.002	NA	0.002	0.00%	0.04%	NA	0.04%
<b>TOTAL</b>	<b>4.804</b>	<b>0.010</b>	<b>0.044</b>	<b>4.859</b>	<b>98.89%</b>	<b>0.20%</b>	<b>0.91%</b>	<b>100.00%</b>

TABLE 5

## CHRONIC REFERENCE DOSES

Contaminant of Concern	Chronic Reference Dose (RfD) (mg/kg-day)
Antimony	NA
Barium	0.0001
Beryllium	NA
Cadmium	NA
Chromium	NA
Cobalt	NA
Copper	NA
Lead	NA
Manganese	0.0003
Mercury	NA
Nickel	NA
Selenium	NA
Silver	NA
Vanadium	NA
Zinc	NA
1,1,1-Trichloroethane	0.3
1,1-Dichloroethane	0.1
1,1-Dichloroethene	NA
1,2-Dichloroethane (total)	NA
2-Hexanone	NA
4-Methyl-2-pentanone	0.02
Acetone	NA
Benzene	NA
Carbon disulfide	NA
Chloroethane	NA
Dichlorodifluoromethane	0.05
Methylene chloride	0.837
Tetrachloroethane	NA
Trichloroethane	NA
Vinyl Chloride	NA
2-Chlorophenol	NA
Anthracene	NA
Benzoic Acid	NA
Benzo(a)pyrene	NA
Benzo(b)fluoranthene	NA
Benzo(g,h,i)perylene	NA
Benzo(k)fluoranthene	NA
bis(2-Ethylhexyl)phthalate	NA
Butylbenzylphthalate	NA
Chrysene	NA
Dibenz(a,h)anthracene	NA
Diethylphthalate	NA
Dimethylphthalate	NA
Di-n-Butylphthalate	NA
Di-n-octylphthalate	NA
Fluoranthene	NA
Indeno(1,2,3-cd)Pyrene	NA
Phenanthrene	NA
Pyrene	NA
4,4'-DDE	NA
Aldrin	NA
Dieldrin	NA

AR304782

EPA 03645

from the CPF. Use of this approach makes an underestimation of the cancer risk highly unlikely. CPFs are derived from the results of human epidemiological studies for chronic animal bioassays to which animal-to-human extrapolation and uncertainty factors have been applied.

Reference doses (RfDs) have been developed by EPA for indicating the potential for adverse health effects from exposure to chemicals exhibiting noncarcinogenic effects. RfDs, which are expressed in units of mg/kg/day, are estimates of lifetime daily exposure levels for humans, including sensitive individuals. Estimated intakes of chemicals from environmental media (e.g., the amount of a chemical ingested from contaminated drinking water) can be compared to the RfD. RfDs are derived from human epidemiological studies or animal studies to which uncertainty factors have been applied (e.g., to account for the use of animal data to predict effects on humans.) These uncertainty factors help ensure that the RfDs will not underestimate the potential for adverse noncarcinogenic effects to occur.

The CPFs and RfDs for the contaminants of concern are contained in Tables 4 & 5.

For the Keystone Site, excess lifetime cancer risks are determined by multiplying the daily intake level of chemical from environmental media with the CPF. These risks are probabilities that are generally expressed in scientific notation (e.g.,  $1 \times 10^{-6}$  or  $1\text{E}-06$ ). An excess lifetime cancer risk of  $1\text{E}-6$  indicates that, as a plausible upper bound, an individual has a one in a million chance of developing cancer as result of site-related exposure to a carcinogen over a 70-year lifetime under the specific exposure conditions at a site. The estimated lifetime excess cancer risks by exposure routes and environmental media are shown in Table 6.

Potential concern for noncarcinogenic effects of a single contaminant in a single medium is expressed as the hazard quotient (HQ) (or the ratio of the estimated intake derived from the reference dose). By adding the HQs for all contaminants within a medium or across all media to which a given population may be reasonably be exposed, the Hazard Index (HI) can be generated. The HI provides a useful reference point for gauging the potential significance of multiple contaminant exposure within a single medium or across media. A HI less than one or equal to one indicates there is no significant risk of adverse health effects. The estimated HI or noncarcinogenic risk by exposure routes is shown on Table 7 and by environmental media on Table 8.

The results of the estimated excess lifetime cancer risks indicates that the total cancer risks for the Site is  $5\text{E}-04$ . This value is considered outside the target range of  $1\text{E}-04$  to  $1\text{E}-06$  which is used by EPA for determining the need for a remedial action at the Site.

The contaminants of concern for each medium were evaluated for the following criteria: frequency of detection; range of sample quantitation levels for nondetected analytes; range of detected concentrations; background levels; 95% confidence mean concentrations for onsite and affected by the site sampling locations; maximum concentrations detected at onsite and affected by the site sampling locations; and calculated exposures.

Considering all these evaluation criteria, the following list of contaminants of concern were developed for the Keystone Site.

- o Inorganics: antimony, beryllium, barium, cadmium, chromium, copper, cobalt, lead, manganese, mercury, nickel, selenium, silver, vanadium, and zinc.
- o VOCs: 2-hexanone, vinyl chloride, chloroethane, methylene chloride, acetone, benzene, carbon disulfide, 1,1-dichloroethene, 1,1-dichloroethane, 1,2-dichloroethene(total), 1,1,1-trichloroethane, trichloroethene, tetrachloroethene, 4-methyl-2-pentanone, and dichlorofluoromethane.
- o SVOCs: benzoic acid, 2-chlorophenol, diethylphthalate, chrysene, bis(2-ethylhexyl)phthalate, phenanthrene, anthracene, di-n-butylphthalate, fluoranthene, dimethylphthalate, pyrene, butylbenzylphthalate, and di-n-octylphthalate.

#### Exposure Pathways

Exposure pathways identified at the Keystone Site have been considered for current and future use populations and include the following:

- Dermal contact and ingestion of surface soils and exposed wastes.
- Inhalation of suspended particles generated from soils and exposed wastes.
- Dermal contact and ingestion of sediments and surface water.
- Inhalation during showering, dermal contact with, and ingestion of.

The most likely potential exposed populations under current and future conditions are Keystone employees, trespassers, onsite remedial workers, and nearby residents. Since onsite residents and workers experience greater exposure at the site, the quantitative risk assessment was performed to evaluate onsite adults.

## SUMMARY OF SITE RISKS

The purpose of the risk assessment performed for the Keystone Site was to assess if actual or threatened releases of hazardous substances pose potential risks to exposed individuals under current or possible future exposure circumstances. In order to accomplish this, the risk assessment focused on the following: (1) the contaminants detected during the RI; (2) the potential or actual potential exposure pathways; (3) the potential or actual human receptors; (4) the toxicity information on contaminants of concern; and (5) the risk characterization information. The following paragraphs will discuss these issues and provide a summarized rationale for the Selected Remedy.

### Contaminant Identification Information

At the Keystone Site, the groundwater, surface water, surface soil and sediments were considered media to which a human population may be exposed. Each of these media were analyzed for various organic and inorganic contaminants. Contaminants of concern were selected for each of the media sampled based on the frequency of occurrence of contaminants, concentrations found on-site relative to those found offsite, and concentrations relative to background (primarily for inorganic in soil, sediment, and groundwater).

The selected contaminants of concern for the surface soil medium are listed below:

- o Inorganics: antimony, manganese, mercury, selenium, and silver.
- o Volatile Organic Compounds (VOCs): 2-hexanone, 1,1-dichloroethane, 1,2-dichloroethene (total), 1,1,1-trichloroethane, trichloroethene, 4-methyl-2-pentanone, and tetrachloroethene.
- o Semi-volatile Organic Compounds (SVOCs): Benzoic acid, dimethylphthalate, diethylphthalate, phenanthrene, anthracene, di-n-butylphthalate, fluoranthene, pyrene, butylbenzylphthalate, chrysene, di-n-octylphthalate, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenz(a,h)anthracene, benzo(g,h,i)perylene, and bis(2-ethylhexyl)phthalate.
- o Pesticides: dieldrin.

The selected contaminants of concern for the surface water medium are listed below:

treatment and an impermeable cap. Of these costs, approximately \$4,000,000 is the cap and \$3,250,000 is present worth O & M costs.

Alternative 5 has the highest present worth cost at \$10,695,000 to cover treatment and a multimedia cap. Of these costs, approximately \$5,000,000 is the multimedia cap and \$3,179,000 is present worth O & M costs.

#### State Acceptance

The Commonwealth of Pennsylvania has concurred with the selection of Alternative 4, groundwater treatment with the installation of an impermeable cap that meets PA Municipal Landfill Closure requirements.

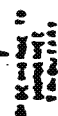
#### Community Acceptance

The public meeting for presentation of the RI/FS and the Proposed Plan was held on September 13, 1990. Community interest was very high at this Site. Comments received during the public meeting and the comment period are discussed in the Responsiveness Summary attached to this Record of Decision.

#### THE SELECTED REMEDY

From the results of the RI/FS and the baseline risk assessment, it has been determined that a remedial response action is required at the Keystone Site to reduce the risk from the groundwater contamination. It has also been determined that due to the volume of the waste which is considered the source (1.7 million cubic yards) and the nonhomogeneity of the waste that is impracticable to treat the source. Therefore, the remedial action response is to contain the waste (source) and treat the groundwater. Remedial action goals have been established to bring all risks to within the  $10E-4$  to  $10E-6$  risk range for carcinogenic risks and less than 1 for non-carcinogenic risks. It has also been established that the groundwater contamination will be reduced to meet the remediation goals of "background quality" as required in 25 PA Code §§ 264.90 - 264.100 and in particular, by §§ 264.97(i),(j) and 264.100(a)(9) and/or the MCLs or Non-zero MCLGs as specified in SDWA, whichever are lower. See the next paragraph for explanation. The Commonwealth of Pennsylvania also maintains that the requirement to remediate to background is found on other legal authorities.

Based on the considerations in CERCLA, detailed analysis of the five alternatives developed and comments from the Commonwealth of Pennsylvania, the State of Maryland and the public, EPA has selected a remedy. The remedy EPA has selected is Alternative 4-groundwater extraction, treatment and discharge and the installation of an impermeable cap. The goal of this remedial



9

304803

ED\_006204\_00005142-00211

3  
surficial soils from the spray irrigation area excavated to back ground levels and places on top of the landfill. An active gas extraction system would be installed in compliance with 25 PA Code §§ 273.292 between the existing landfill and the impermeable cap to prevent buildup of methane gas. Gas collection wells would be installed in the landfill to depths of approximately 20 feet. The gas would be collected through a piping network and sent to a gas burner. Leachate collection would not be considered necessary as the contaminated groundwater would be intercepted as it moves laterally from the Site. Since groundwater would be collected from the perimeter of the landfill, rather than beneath the landfill, groundwater levels beneath the landfill are not expected to drop appreciably. Settlement, due to extraction of groundwater, is not expected to pose a problem since the landfill is located on bedrock.

In addition to the groundwater treatment and cap, the remedy selected by EPA has several measures to ensure the protection of human health and the environment. The measures are as follows:

- New fencing will be installed at the perimeter of the property to restrict access and to limit exposure potential to onsite contaminants.

- Institutional and administrative controls through the use of deed restrictions on the sale and transfer of the property would be enacted to insure that future property owners would not misuse the Site. Restrictions on property use would include aquifer use limitations and limitations on construction.

- Groundwater would be monitored to determine the effectiveness of the remedy. Sampling will be conducted quarterly in the first year for TCL organic and TAL inorganic compounds. After the first year, sampling will be conducted semi-annually until the five year review occurs to evaluate the effectiveness of the remedy.

- Residential wells around the Site will be sampled quarterly in the first year for TCL organic and TAL inorganic compounds. After the first year, sampling will be conducted annually until the five year review occurs to evaluate the effectiveness of the remedy. If two successive samples detect MCLs being exceeded, an additional remedial action will be considered to provide the affected residents with potable water.

- Surface water and sediments will be sampled quarterly in the first year for TCL organics and TAL inorganic compounds plus methylmercury. After the first year, sampling will be conducted semi-annually until the five year review occurs to evaluate the effectiveness of the remedy. If an anomaly is



seen in two successive samples, additional studies will be conducted to determine the need for remedial action.

- The onsite residents would have an in home treatment system installed for their groundwater.
- A review would be conducted every five years as wastes are being left onsite. The assessment includes analyzing groundwater samples for TCL organic and TAL inorganic compounds. A report will be made to summarize the results and any related health effects.

The estimated net present worth of this remedy is \$9,156,950. This was calculated using the cost associated with construction and the annual operation and maintenance plus contingencies. A 5% discount rate was used to convert the annual O & M costs to present worth costs and this was added to the total of the construction costs. See costs on Table 10 below. The total construction costs of \$5,906,000 were combined with the present worth O & M costs of \$3,250,00 to derive the total present worth costs of \$9,157,000. The annual O & M costs are \$217,000 with the first year O & M being somewhat larger due to the quarterly sampling requirements of the first year for the monitoring wells, residential wells, and surface water and sediments.

#### STATUTORY DETERMINATIONS

EPA's primary responsibility at Superfund remedial sites is to undertake remedial actions that achieve adequate protection of human health and the environment. In addition, Section 121 of CERCLA, 42 U.S.C. § 9621 establishes several other statutory requirements and preferences. These specify that when complete, selected remedial action for a site must comply with applicable or relevant and appropriate environmental standards established under Federal and State environmental law unless a waiver is justified. The Selected Remedy also must be cost effective and utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. Finally, the EPA has a statutory preference for remedial actions that employ treatment that permanently and significantly reduces the volume, toxicity and mobility of hazardous substances as their principal element. The following sections discuss how the Selected Remedy meets the statutory requirements and preferences set forth by Section 121 of CERCLA, 42 U.S.C. § 9621.

#### Protection of Human Health and the Environment.

The baseline risk assessment identified inhalation and ingestion of groundwater as significant exposure pathways having an adverse effect on human health. The environmental survey in the RI indicated that although the Ambient Water Quality Criteria is being exceeded for several metals in the surface water, there is no

Action specific ARARs are usually technology or activity based requirements or limitations taken with respect to hazardous waste and triggered by a remedial action. For the Keystone Site these are as follows:

- o Pennsylvania Air Quality Standard, 25 PA Code §§ 123.1(c) establishes requirements for fugitive dusts.
- o 25 PA Code §§ 127.12 (a)(5) requiring emissions be reduced to minimum obtainable levels through the use of best available technology (BAT).
- o OWSER Directive 9355.0-28 for emission from air stripper in ozone nonattainment areas.
- o National Emissions Standards for Hazardous Air Pollutants (NESHAPS) which contains emission standards for vinyl chloride plants. (61 C.F.R. § § 61.60 - 61.71)
- o Clean Air Act (Part D) (42 USC Section 7402-7642).
- o Pennsylvania Municipal Landfill Requirements, 25 PA Code § 75.1 et. seq. in particular 25 PA Code §§273.234. which sets forth municipal landfill cap requirements.
- o 25 PA Code §§ 102.1 et. seq. sets forth requirements for control of soil erosion and sedimentation resulting from earth moving activities.
- o 25 U.S.C. Parts 1910 and 1926 and 29 CFR Part 1910, Occupational Health and Safety Act states requirements for response actions at Superfund Sites.

#### Cost Effectiveness

The Selected Remedy is cost effective because it has been determined to provide overall effectiveness proportional to its costs in reducing the risk from groundwater contamination and landfilled waste. This remedy at \$9,156,950 present net worth cost is the fourth highest costing remedy. While it is somewhat more costly than Alternative 1, 2, or 3, the additional costs for capping represents a degree of protection that is required by CERCLA for human health and the environment. This remedy provides a reasonable cost effective solution to a landfill volume of 3,177,000 cubic yards.